

EVOLUTION OF EDUCATOR PROFESSIONAL
DEVELOPMENT IN THE AGE OF SOCIAL MEDIA: A
CASE STUDY OF THE #OKLAED COMMUNITY OF
PRACTICE ON TWITTER

By

SCOTT MARSHALL HASELWOOD

Bachelor of Arts in History Education
University of Central Oklahoma
Edmond, Oklahoma
1995

Master of Education in Collaborative Education
Graceland University
Lamoni, Iowa
2004

Submitted to the Faculty of the
Graduate College of the
Oklahoma State University
in partial fulfillment of
the requirements for
the Degree of
DOCTOR OF PHILOSOPHY
May 2018

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Dissertation Approved:

Dr. Tataleni I. Asino

Dissertation Adviser

Dr. Susan L. Stansberry

Dr. Penny Thompson

Dr. Pamela U. Brown

ACKNOWLEDGEMENTS

This quest would not have happened without some key ingredients. First, the support and encouragement all along the way from my wife, Jaz. Without her constant love and encouragement to “hurry up and finish” this would not have happened. Sweetheart – we did it!! To my amazing kids, Roan, Maerin, and Madigan – I will play every zombie game you ask me to play, we will kick every soccer ball, we will climb every wall. I will not say no again!

This journey has its genesis at the ISTE conference in San Antonio several years ago. My partner in crime, Kristina and I learned all we could about the flipped classroom, sparking an interest in educational technology I have yet to relinquish. The first thoughts on going back to school started to invade my brain on the flight home from that conference.

#Oklaed, this paper is you. It’s your voices, it’s your tweets, it’s you. Without you, this project would not have happened.

To my committee, Dr. Stansberry, Dr. Thompson, and Dr. Brown – you have all challenged me during this journey. I am so grateful for the opportunity to work with all of you during those two years of classes. I appreciate how all of you took time out of your day to pour into me. I am so incredibly blessed by all of you. Dr. Stansberry, thank you for all the hours you spent with me during advisement, writing our article together, designing the gamification course (that was way too much fun), and helping me do more than I realized I could do.

And Dr. T. You Rock. You got me over the finish line with constant positive encouragement. Even when I was sure that there was no way I could meet some of the deadlines, you pushed and nudged, and encouraged. So. Here. We. Are. Wow.

#Amazeballs #Oklaed #WeDidIt
#PhDone

Name: SCOTT MARSHALL HASELWOOD

Date of Degree: MAY 2018

Title of Study: EVOLUTION OF EDUCATOR PROFESSIONAL DEVELOPMENT IN
THE AGE OF SOCIAL MEDIA: A CASE STUDY OF THE #OKLAED COMMUNITY
OF PRACTICE ON TWITTER

Major Field: EDUCATION

Abstract: This case study examines in what ways the #Oklaed hashtag on Twitter represents a community of practice, why educators are participating in this space, and what benefits educators see in their practice. Educators are choosing to participate in Twitter chats, and this study will show the value of professional development when educators can choose when and how they participate. A survey shared through Twitter provided a way for educators to share how they were using Twitter. From this data, interview participants were selected for a semi-structured interview. Finally, data was collected from Twitter of tweets that were shared with #Oklaed in the text of the tweet from January 2013d to February 2017. By analyzing the survey, interview transcriptions and codes, and the Twitter data, there is evidence that the #Oklaed hashtag represents a community of practice. Other implications are that administrators should consider utilizing social media as a possible way to complement professional development that is required by the school or district.

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CHAPTER I

INTRODUCTION

Introduction to the Study

In January 2002 the United States Congress passed the No Child Left Behind Act (NCLB). One part of the law mandated that P12 educators must participate in meaningful professional development. NCLB defined professional development as an undertaking that was sustained over an extended period, had an emphasis on the classroom, and was something that would result in better teacher performance in the classroom (H.R. 1, 2002). NCLB mandated that teachers must participate in professional development. The law stated that professional development “includes activities that...are high quality, sustained, intensive, and classroom-focused in order to have a positive and lasting impact on classroom instruction and the teacher’s performance in the classroom” (H.R. 1, 2002, pg. 539). In 2015, the Every Student Succeeds Act (ESSA) (S. 1177, 2015) was signed into law, which changed how teacher professional development would be defined. ESSA states that professional development should be “personalized, ongoing, job-embedded activities” (ASCD, 2015, p. 6).

Congress replaced NCLB with the Every Student Succeeds Act (ESSA) in 2015. Although ESSA maintained the requirement of professional development being

something that was sustained over time and required teachers to participate in professional development, the new law updated the definition of professional development to allow teachers to have some autonomy of learning about things that were more personal (S. 1177, 2015).

Students benefit when teachers are given time to collaborate with other teachers and participate in professional development that is ongoing (Darling-Hammond, Wei, Andree, Richardson, & Orphanos, 2009). With limited funds and limited time, teachers are seeking and finding professional development in social media, and Twitter has been used with positive outcomes (Carpenter & Krutka, 2015). Teachers who can reflect on their practice, talk with other teachers, and share what they are doing, are participating in professional development that benefits students (Darling-Hammond, 2008). While both the literature and the law recognize the importance of educator professional development (PD), what is seemingly absent is the recognition that PD is changing, with more educators engaging in PD through online social networks and communities. It is possible that Twitter could provide a social network space for PD to happen.

Background of the Problem

Professional development occurs in all professions. Regarding teacher professional development, Little (1987) defines it as “any activity that is intended partly or primarily to prepare paid staff members for improved performance in present or future roles in the school districts” (p. 491). Professional development consists of participating in activities designed to keep one up to date on their professions or improve practices. The activities can be both formal and informal opportunities. Formal learning occurs inside of a structured learning environment; these can include building or district staff developments, workshops, or

courses, all of which are intended to meet a specific learning outcome (Richter, Kunter, Klusmann, Lüdtke, & Baumert, 2011). In contrast to formal learning is informal learning. Informal learning opportunities are not bound to a specific learning structure with a specific learning outcome. Informal opportunities could include collaboration, mentoring, or participating in a learning network (Richter et al., 2011). This dissertation, however, focuses only on professional development for educators.

Professional development is typically monitored by state agencies and administered by local schools or districts. Professional development can be delivered in a variety of ways including one-off workshops, district or school-specific training, or conferences (Komba and Nkumbi, 2008). These models of professional development deliver training in short-term session, with no long-term, sustained discussion. Most of this training is mandated by the district or school, with little input from teachers (Broughman, 2006). All too frequently, these workshop types of trainings do not allow for intense discussion or debate and do not use active learning strategies (Little, 1993). Professional development focused on a specific topic, sustained over time, and using active learning techniques can have a measurable, positive impact on teacher practice and student learning (Ann Jaquith, 2010; Darling-Hammond, 2008; Darling-Hammond et al., 2009; Johnson, Kahle, & Fargo, 2007; Wei, Darling-Hammond, & Adamson, 2010; Yoon, Duncan, Lee, Scarloss, & Shapley, 2007).

Educators, like other professionals, like to have some choice in where and how they are getting professional development. Outside of the more traditional models that have been discussed, teachers are using several different methods to choose professional development that can benefit them as the individual. Educators are using peer observations in their buildings, or even visiting teachers in other schools or districts. They are earning

advanced degrees by earning graduate degrees in education. Educators are participating in professional development programs that offer several days of training in the summer, with multiple days of follow up during the school year. Educators are also seeking professional development through unconferences, such as Edcamps.

Edcamps are “unconferences” where participants meet together and set the agenda for the day before the event begins. Participants have the opportunity to contribute session ideas, whether they want to lead them or not. Participants can attend any session they choose, however there is one characteristic that is unique: Edcamp participants are encouraged to use the “rule of two feet.” This rule states that if the participant is not getting what they want from a particular session, they are to get up and find one that is a better fit. As a result, there are people constantly moving between sessions. Brown (2015) found that teachers participating in Edcamp and tweeting “found their Edcamp experiences to be energizing and meaningful” (p. 82). Brown went on to conclude that a majority of the teachers who participated in the study felt the professional development from Edcamps was “legitimate, informal PD that was relevant to their classroom and school contexts” (Brown, 2015, p. 82).

Teachers have also started using different social media platforms, including Google+, Facebook, Pinterest, various blogging websites, and Twitter. The first tweet sent out through the social media platform Twitter happened on March 21, 2006, at 2:50 p.m. "just setting up my twttr" (Dorsey, 2006) is credited to Jack Dorsey (@jack), one of the founders of the Twitter social media platform. It was the beginning of a process that led to a public launch of the service on July 15, 2006 (Arrington, 2006). Since then the name changed from Twttr to Twitter, and use has skyrocketed to 313 million monthly users with over 50 supported languages for reading their website (Twitter, 2016). As of January 2017, there were 500

million tweets sent per day, which is 6,000 tweets per second, from 100 million daily active users (<https://www.omnicoreagency.com/Twitter-statistics/>). As the number of Twitter users grew, the hashtag (#) became a way to organize tweets into channels or streams. In August 2007, blogger Factory Joe blogged some thoughts on grouping things in Twitter, or at the least, create some channels for Twitter users to follow (Messina, 2007), ultimately suggesting a hashtag.



Figure 1. An example of a tweet with the hashtag #Oklaed in the text.

Now hashtags are ubiquitous, from conference specific to breaking news and everything in between, the hashtag is part of the Twitter experience. Hashtags provide those channels for users to follow, each tweet with a specific hashtag will be grouped when a user performs a search in Twitter. Each tweet can contain several hashtags or no hashtag at all. Each hashtag can be followed in real-time through a Twitter search, although there are tools that are more user-friendly than the native Twitter interface when following several hashtags at one time.

As Twitter grew in popularity, users developed the idea of having a synchronous conversation focused on a particular hashtag. These discussions, called Twitter Chats, cover a variety of topics from almost every industry. Most Twitter Chats occur on regularly scheduled dates (e.g., #edchat, for educators, occurs every Tuesday at 6:00 p.m. CST, #tlap, teach like a pirate chat for educators, occurs every Monday at 8:00 p.m. CST, and #Oklaed, for educators in Oklahoma, happens every Sunday at 8:00 p.m. CST). Twitter chats take

place in the public domain, and it is not necessary to have a Twitter account to follow a Twitter chat. There are often several people who are not actively participating in this space (lurking), but who view the tweets without responding.

Twitter has started to collide with professional development (PD) for educators. Krukta and Carpenter found Twitter provides the opportunity for educators to have agency in what they are learning, and give teachers the opportunity to learn anything at any time (2014). These researchers also found teachers building professional learning networks through Twitter find opportunities for engagement, participation, and community that extend beyond the walls of the school (Carpenter & Krutka, 2015; Trust, Krutka, & Carpenter, 2016). Often educator PD is a one-off workshop (a one day, one time workshop), a conference, or something mandated by the school or district (Choy, Chen, & Bugarin, 2006). However, effective PD is sustained and focused; effective PD happens when educators can reflect on their practice (Darling-Hammond & Richardson, 2009). Twitter chats have been found to offer these PD opportunities for teachers. Teachers are actively participating in these conversations, making connections to educators outside of their building or district. Several Twitter chats are focused on specific content areas (e.g., #sschat is for social studies teachers, #mathchat is for math teachers, and #kinderchat for kindergarten teachers). Some are focused on ideas that teachers are using (e.g., #pblchat for project-based learning, #sbgchat for standards-based grading, or #tlap for teach like a pirate). Several of these chats have a central focus aimed at classroom practice. The connections that develop on Twitter around these conversations represent communities of practice. In a community of practice there are three critical components: 1) there is a shared domain of interest, 2) the participants in the shared domain build relationships, trade ideas with each other, all while working

together and 3) practice what the community is built around (Wenger, 1998). A result of teachers publicly sharing what they are doing in the classroom is that they can get critical feedback on their ideas, which is necessary for educator PD (Lieberman & Pointer-Mace, 2009). All of these chats are examples of long-term, public conversations that provide opportunities for reflection for educators who are actively participating.

#Oklaed is an example of a Twitter chat that is a community of practice for participating teachers. This Twitter chat was started during EdCampOKC in February 2013 (A. Beck, personal communication, January 14, 2016) and has been held every Sunday evening since then. The plan developed in the EdCampOKC session for the #Oklaed chat included an educational policy discussion on the fifth Sunday of each month, a community chosen topic on the third Sunday of the month, and guest moderators on the remaining Sundays. The format has evolved a bit from the very first chat: every Sunday there is a guest moderator who leads the chat, while the educational policy chat still occurs on the fifth Sunday. Anyone can ask to moderate (lead) the #Oklaed chat by tweeting a request to lead with #Oklaed in the tweet. There is a small group of educators who review these requests and will reach out through Twitter or email to get details of the topic. With the popularity of the chat, moderators are often scheduled weeks ahead of time.

During the chat, participants are encouraged to answer questions by sending tweets with the phrase #Oklaed included in the tweet. The moderator will tweet questions and participants will respond. Each #Oklaed chat is scheduled for one hour, although the conversation will sometimes continue long afterward. These chats have centered on several topics including classroom management, mentoring, educational technology resources, flipped classroom, and so much more.

Statement of the Research Problem

Educators from around the world are regularly participating in synchronous chats on Twitter. An example of this is a group of educators who use an hour of their time outside of the contract day each week to connect with others through the #Oklaed chat. Almost two hundred educators and community stakeholders are actively participating each week in the #Oklaed chat, with an unknown number of people participating by reading the chat as it happens, a practice that is referred to as lurking. Although it is documented in the literature that educators are actively participating in Twitter chats, what is less known, is which educators are participating, why they are participating, what they do with what they learn in these conversations, what benefits, if any educators see in their practice, and if such participation represents an evolution in teacher PD.

Purpose of Study

The purpose of this study is to use a community of practice theoretical lens to examine and understand who is participating in #Oklaed, why they are participating and what they do with what they learn in these conversations, and to determine what benefits, if any, educators see in their practice.

Conceptual Framework

This study of teachers using Twitter for PD follows a conceptual framework that includes the theory of communities of practice and the role of the Twitter chat in educator PD.

Communities of practice (CoP) is a theory concerning social learning (Wenger, 1998). There are three defining characteristics of a CoP: the domain, the community, and the

practice. The domain of a CoP is what holds a particular group of people together; the community is the group of individuals who are interacting together; and the practice is how this group will function (Wenger, 1998; Wenger, McDermott, & Snyder, 2002). A CoP can be a critical aspect of the flow of information and the sharing of knowledge inside a particular community (Preece, Nonnecke, & Andrews, 2004). The present study seeks to identify how participants in a Twitter Chat are members of a CoP.

Research Questions

The purpose of this study is to use a community of practice theoretical lens to examine and understand who is participating in #Oklaed, why they are participating and what they do with what they learn in these conversations, and to determine what benefits, if any, educators see in their practice. The present study will be guided by the following research questions:

1. Who is participating in #Oklaed on Twitter?
2. In what ways can the #Oklaed hashtag on Twitter be viewed as a community of practice?
3. How is professional development evolving through the use of the #Oklaed hashtag on Twitter?

Significance of the Study

This study contributes to the knowledge base regarding social media as an emerging space for educator PD. Educators are choosing to participate in Twitter chats, and this study will show the value of professional development when educators can choose when and how they want to participate. The results of this study will familiarize those who are reading it

with Twitter chats and the important way this informal teacher professional development can impact teacher practice.

Limitations

Prior to the start of this study, I had been (and continue to be) an active participant in the #Oklaed chat and frequently share tweets with the hashtag #Oklaed. My participation in the space has given me an emic perspective for this research. I follow and am followed by several of the #Oklaed chat participants. I have moderated several chats and frequently offer help for those who would like to participate but are not sure how to get started. My involvement in #Oklaed could influence how I interpret and analyze the data. Another limitation for this study is that data only examines what is occurring in #Oklaed. Any results from this study may not easily translate to other twitter chats or communities.

Definition of Terms

Twitter. Twitter is an online microblogging social media platform where users can share short blog posts. When the research was started for this dissertation, Twitter limited posts to 140 characters. By the end of the research, Twitter changed this to allow posts up to 280 characters. Twitter is a free platform that anyone can use if they have created an account. It is also possible to view tweets without having a Twitter account. Twitter has a robust internal search engine that makes it easy to find specific hashtags or key terms.

Tweets. Tweets are short messages that Twitter users can share. Each tweet is limited to 140 characters; however, usernames no longer count against the 140-character limit. Users can create a unique tweet, retweet another user, or quote another user's tweet and add something to it. Users can also favorite tweets. Tweets can contain video, pictures, or links.

Hashtags. Hashtags use the pound sign (#) followed by a specific phrase and are used to pull tweets into specific, easy to identify channels.

Twitter Chats. Twitter chats are real-time synchronous chats that occur at regularly scheduled intervals. Twitter chats are grouped into specific channels by a hashtag included in each tweet from the participants. It is not necessary to have a Twitter account to view a Twitter chat as it is occurring, but there is a need to have a Twitter account to participate in a Twitter chat.

Lurking. Lurking is the act of passively viewing a Twitter chat and not posting any tweets (Muller, 2012).

Moderator. A chat moderator is the user who is “hosting” a particular chat. This person guides the chat by posting questions for participants to answer, retweeting and favoring tweets from chat participants, and in general ensures that the chat is not stagnant.

Professional Development. For this study, professional development is defined as “opportunities that will help them [educators] enhance their knowledge and develop new instructional practices” (Borko, 2004, p. 3).

Teacher. For this study, a teacher is any professional educator who is currently involved with education. Professional educators will include building and district administrators, higher education professors, classroom teachers, technology coaches, or anyone else who is actively participating in the education process.

Community of Practice. A community of practice is “groups of people who share a concern or a passion for something they do, and learn how to do it better as they interact regularly” (Wenger, 2011).

Summary

This chapter established a background for researching the impact that Twitter has on those who are participating in the #Oklaed conversation. Use of Twitter by educators has developed into synchronous chats over a variety of topics. This study used a community of practice theoretical lens to examine and understand who is participating in #Oklaed, why they are participating, what they do with what they learn in these conversations, and to determine what benefits, if any, educators see in their practice. Chapter 2 of this study will review the relevant literature related to professional development, communities of practice, social media, and case study research. Chapter 3 will discuss the case study design of the research for examining #Oklaed on Twitter, the method for collecting data through interviews, surveys, and document analysis, and how the data will be analyzed. Chapter 4 will review the data that was collected during the study and present the findings that were revealed. Chapter 5 will present a summary of the findings, conclusions and discussion of the results, and implications of this research.

CHAPTER II

REVIEW OF THE LITERATURE

Introduction

Educators are regularly engaging on social media sites such as Twitter, exchanging ideas and sharing their experiences. The purpose of this study is to use a community of practice theoretical lens to examine and understand who is participating in #Oklaed, why they are participating and what they do with what they learn in these conversations, and to determine what benefits, if any, educators see in their practice. Archived transcripts of the #Oklaed Twitter chats from 2013 (inception) to February 2017, and personal interviews will be used to understand the benefits of educator professional development through Twitter.

The search for literature and empirical studies related to teacher professional development through social media use occurred in two phases. In phase one, the following databases were used: Social Sciences Citation Index, ERIC, Proquest, Digital Dissertations, and Google Scholar. The review of the literature included topics that were related to communities of practice, Twitter, and professional development. Keywords searched in each database included: “teachers and social media,” “teacher professional development,” “professional development best practices,” “Twitter professional

development,” “social media professional development,” “professional learning networks,” “communities of practice,” and “professional learning communities.” The second phase of the search included using sources that were listed in reference sections of the reviewed literature.

Organization of the Chapter

This chapter will be organized into different sections that are relevant to the study. First, there is a brief discussion on the method used to search the literature. This will be followed by a discussion on studies centered on professional development. After professional development will be a discussion on the theoretical framework used for this study followed by study design. Finally, there will be discussion on social media.

Professional Development

In the United States, teachers participate in an average of sixteen hours of professional development over a twelve-month period, just two hours more than the minimum amount of time that impacts student outcomes (Yoon et al., 2007). Most of that time is spent in short-term conferences or workshops, which are not very useful ways of delivering professional development; yet, in the United States there is increasing focus on these models (Darling-Hammond et al., 2009; Wei et al., 2010). Teachers who participate in sustained, ongoing professional development and who can participate in meaningful collaboration with other teachers improve student outcomes (Darling-Hammond, 2008; Wei et al., 2010).

Combined with poor professional development models, teachers in the United States spend considerably more time involved in direct instruction than some of their international peers. The time spent on direct instruction takes away time better used for

collaboration, focused discussion, and classroom reflection, all of which can lead to increased student performance (Darling-Hammond & Richardson, 2009). United States teachers spend an average of 80% of their time teaching, while teachers in other high performing countries spend 60% of their time teaching. Teachers in other countries that are members of the Organisation for Economic Co-operation and Development (Denmark, Finland, Hungary, Italy, Norway, and Switzerland), can spend more time getting professional development and collaborating (Darling-Hammond et al., 2009). These nations are making investments in professional development for teachers by using a system that builds “ongoing, sustained teacher development and collaboration into teachers’ work hours” (Darling-Hammond et al., 2009, p. 4).

What contributes to quality professional development? In a series of articles published by the National Staff Development Council, Darling-Hammond, Wei, Andree, Richardson, and Orphanos (2009), Wei, Darling-Hammond, and Adamson (2010), and Jaquith, A., Mindich, D., Wei, R. C., and Darling-Hammond, L. (2010) discuss the issues that teachers in the United States are facing with professional development. The data used for this article series came from the National Center for Education Statistics 2003-04 Schools and Staffing Survey. This data set is nationally representative, and the sample included over 130,000 public and private school teachers from all 50 United States. This data set was analyzed in conjunction with the NSDC Standards Assessment Inventory from 2007-08. This inventory measured teachers’ perceptions of PD in the United States. Data for NSDC was gathered from 150,000 teachers from more than 5,400 schools in 11 states and one Canadian province. The research team focused on four states: Alabama, Georgia, Arizona, and Missouri as the survey was distributed statewide in these states.

Data was also pulled from the MetLife Survey of the American Teacher and the National Education Association's Survey of America's Teachers and Support Professionals on Technology (Darling-Hammond et al., 2009). Wei et al. provide several characteristics for high-quality teacher professional development:

- focused on specific curriculum content and pedagogies needed to teach that content effectively;
- offered as a coherent part of a whole school reform effort, with assessments, standards, and professional development seamlessly linked;
- designed to engage teachers in active learning that allows them to make sense of what they learn in meaningful ways;
- presented in an intensive, sustained, and continuous manner over time;
- linked to analysis of teaching and student learning, including the formative use of assessment data;
- supported by coaching, modeling, observation, and feedback;
- connected to teachers' collaborative work in school-based professional learning communities (p. 2)

These characteristics support that high-quality professional development needs to have "high standards" be "content focused" and provide "in-depth learning opportunities for teachers" (Garet, Porter, Desimone, Birman, & Yoon, 2001, p. 917). Professional development needs to take into account the existing curriculum knowledge that teachers have, and how teachers assess that curriculum (Wei et al., 2010). Professional development that is designed to offer over 30 hours of contact time during a 6-12 month

period showed a statistically significant effect on student achievement (Yoon et al., 2007).

Yoon's (2007) study searched for key terms related to PD and to three different subjects: math, science, and reading and English/language arts. Over 1,300 studies were captured in the initial search. Wanting to ensure that studies were relevant to the scope of the research, there was a focus on the following parameters:

- topic had to examine the effects of educator professional development on student achievement;
- the sample population had included k-12 teachers of English, math, science;
- student achievement outcomes needed to be measured;
- measures that were used to measure student outcomes needed to be reliable and valid;
- publication of the study was from 1986-2006;
- the study needed to be done in the United States, the United Kingdom, Australia, or Canada (Yoon et al., 2007).

Studies were prescreened to determine that the listed parameters were met in abstracts, coded for relevance and full text reviews by two independent coders, a second round of coding was done (similar to the first) to determine causal validity as defined by the What Works Clearinghouse evidence standards, a third round of coding was done to examine seven different characteristics: a) an estimate of the impact of PD; b) is the PD and the study able to be replicated; c) the teacher outcome measures; d) the content and the form of the PD as well as duration and intensity; e) the possibility that the PD was

confounded with the curriculum; f) statistical analysis; g) statistical reporting. There were nine studies that met all of the criteria (Yoon et al., 2007).

Schools are spending millions of dollars each year on professional development for teachers, with most professional development being delivered at a low intensity, is fragmented, and does not address adult learning (Borko, 2004). Professional development that emphasizes a specific teaching skill, without checking the skill against desired student outcomes, does not have a large impact (Timperley, Wilson, Barrar, & Fung, 2008) Professional development that is “short, episodic, and disconnected from practice has little impact” on student outcomes. Programs centered on teacher behavior has a smaller effect than programs that focus in on the teachers’ knowledge of curriculum and how students learn that particular subject (Kennedy, 1998).

Teachers should regularly collaborate with one another to improve teaching practice. Communities of practice or professional learning communities are important places for teachers to get professional development (Lieberman & Pointer-Mace, 2009). Teachers do not need to be in a specific space to learn. Learning can happen in several different locations, such as classroom, brief hallways conversations, and their community (Borko, 2004). When teachers engage in a professional learning community with other teachers, learning that occurs in those communities has a positive effect on students (Timperley et al., 2008). It is also important for professional development when teachers are publicly sharing what they are doing in the classroom (Yoon et al., 2007).

The Theory of Communities of Practice

A community of practice is a social structure that has three specific characteristics: a) domain, b) community, and c) practice (Lieberman & Pointer-Mace,

2009). The domain of the community of practice is the reason that people are pulled together. The domain is not necessarily tied to specific issues or problems, although it could be, but should focus on things that resolve over time or requires continuous learning (Borko, 2004). The community itself is important for the development and sharing of knowledge. The community is comprised of individuals who want to “learn together, build relationships...and develop a sense of belonging and mutual commitment” (Timperley et al., 2008). Community also requires that these individual people meet together, or communicate in some fashion, and interact on a regular basis to discuss important issues and developments that are in the shared domain (Lieberman & Pointer-Mace, 2009). The practice of a community of practice is set on a foundation of “socially defined ways of doing things in a specific domain” (Wenger, 1998, 2001; Wenger et al., 2002; Wenger, White, & Smith, 2009). Practice should change over time as the community changes and should support innovation (Wenger, 1998; Wenger et al., 2002). Communities of practice provide value to individuals by giving the individual a connection to “professional development and professional identities of practitioners to the strategy of an organization” (Wenger et al., 2002, p. 34). Inside the communities, knowledge is shared between participants and this sharing is not dependent on one specific form of communicating (Wenger, 1998; Wenger et al., 2002). Table 1 outlines the short- and long-term benefits to participating in a community of practice.

Table 1

Short and long-term benefits of a community of practice (Wenger et al., 2002, p. 16)

Short-Term Benefits	Long-Term Benefits
Help with challenges	Forum for expanding skills and expertise
Better able to contribute to a team	Network for keeping abreast of a field
Confidence in one's approach to problems	Enhanced professional reputation
More meaningful sense of participation	Increased marketability and employability
Sense of belonging	Strong sense of professional identity

Wenger shared fourteen indicators that could be used to identify if a community of practice has been formed. Britt (2015) used communities of practice to examine the #Edchat community on Twitter. She found that this community to represent several of Wenger's indicators. Those indicators include: (Wenger, 1998, pp. 125-126)

- sustained mutual relationships – harmonious or conflictual;
- shared ways of engaging in doing things together;
- the rapid flow of information and propagation of innovation;
- absence of introductory preambles, as if conversations and interactions were merely the continuation of an ongoing process;
- very quick setup of a problem to be discussed;
- substantial overlap in participants' descriptions of who belongs;
- knowing what others know, what they can do, and how they can contribute to an enterprise;
- mutually defining identities;
- the ability to assess the appropriateness of actions and products;
- specific tools, representations, and other artifacts;

- local lore, shared stories, inside jokes, knowing laughter;
- jargon and shortcuts to communication as well as the ease of producing new ones;
- certain styles recognized as displaying membership;
- a shared discourse reflecting a certain perspective on the world.

As a result of how they are organized around the three key elements of domain, community, and practice, communities of practice can be relevant to how knowledge is shared from more experienced members of a community to lesser experienced members of the community (Preece et al., 2004). The active participation in a community of practice can help to preserve the history of the community, allowing new members to carry the community forward in the future (Wenger, 1998).

Social Media

Social media provides teachers the opportunity to learn anything they are interested in any time they have a chance (Trust et al., 2016). This gives teachers freedom to explore and learn about those specific topics that are of concern to the individual teacher (Wenger et al., 2002, p. 16). The use of social media gives teachers agency in what they are interested in learning and provides an opportunity for those teachers to find professional development that meets their need (Trust et al., 2016).

Educators may be able to find professional development through social media for free, providing educators the opportunity to learn from an online community (Wesely, 2013). However, it is worth noting that working to develop an online community through social media could be quite time extensive, or educators could view these spaces as a waste of time (Donelan, 2016). Addressing the issue of committing time growing an

online social community, there are benefits to participating in an online social network, whether that participation is synchronous or asynchronous (Kamalodeen & Jameson-Charles, 2016). Ideas do transfer from what is seen or read in social media to what happens in real life (Ranieri, Manca, & Fini, 2012). When educators publicly share through social media what they are doing in the classroom, there is a positive impact on teacher professional development (Dabbagh & Kitsantas, 2012). The participation in a community of practice is also important to professional development; it allows teachers to reflect on their practice and get criticism of their teaching. This helps educators improve their practice (Lieberman & Pointer-Mace, 2009).

Active participation in social media can also benefit educators. Kamalodeen and Jameson-Charles (2016) found benefits from using social media networks included connections with other educators, opportunities to learn new things, and the ability to share knowledge with others (Donelan, 2016). New teachers moving from pre-service to in-service have opportunities to connect with already established teachers. There is opportunity for both groups of teachers to benefit from each other through participation in these online social spaces (Kamalodeen & Jameson-Charles, 2016).

Online social media communities also allow for peer mentoring to occur (Macià & García, 2016; Risser, 2013). Ranieri et al. (2012) found that educators who invested time in professionally participating in social media had positive outcomes in their practice. This aligns with Booth (2012), who found that having focused, sustained online conversations can promote professional development for educators.

It is important to note that participation in an online community is not always active or cooperative. Lurkers on social media can also benefit, as this is usually one of

the first steps to active participation and deeper involvement in an online community (Macià & García, 2016). It is also important to consider that those who are lurking in online social media educator communities lurk for several reasons, and these educators should not be viewed negatively (Preece et al., 2004). Lurking is when someone only reads social media posts and does not respond by posting to that conversation (Muller, 2012). There are valid reasons for people to not post on social media and these people should not be viewed in a negative way (Preece et al., 2004).

Participation on social media can include a variety of different actions, including but not limited to: sharing resources, collaborating on projects, and having conversations centered on specific topics asynchronously, or synchronously (Kamalodeen & Jameson-Charles, 2016). It is possible for educators to view participation in social media (or any other type of collaborative space) as a waste of time. Using the diversity of communication tools, “such as wikis, blogs, and instant messaging software” as well as other social media spaces that are available can help educators deepen their understanding of specific topics (Macià & García, 2016, p. 300). Educators see online communities as valuable spaces to on-going professional development. Teacher communities are also viewed as useful tools for making lasting change in teaching practice because it is coming from the teachers (Vangrieken, Meredith, Packer, & Kyndt, 2017).

There are also issues that prevent teachers from engaging in online communities; including lack of engagement, a reluctance to participate for fear of being criticized, or because of a lack of experience; there could be insecurity about sharing ideas or concern of a miscommunication. Other issues include a lack of trust, free riding, and low

contribution (Macià & García, 2016). In this instance, free riding is referring to those who consume the information without contributing anything to the conversation. Other issues can be seen with “high-density networks that contain nodes with many offline relations” or wanting to avoid damaging a reputation (Macià & García, 2016, p. 301).

Twitter can be used educators to acquire professional learning, and it helps teachers to establish professional learning networks, which can provide new resources and knowledge (Trust et al., 2016). Teachers are using Twitter to find information and are creating content, allowing conversations centered on learning to continue developing (Vangrieken et al., 2017). Teachers able to grow their learning opportunities well past what was previously available only through traditional professional development (Macià & García, 2016). One thing that teachers must be aware of in this process is the development of a personal echo chamber, where teachers only hear things they want to hear (Macià & García, 2016). However, participation on social media or through some other online space can be a cost-free option for teachers to use to participate in professional development (Holmes, Preston, Shaw, & Buchanan, 2013), and ideas do move from social media into the classroom (Ross, Maninger, LaPrairie, & Sullivan, 2015).

Summary

This chapter examined relevant literature related to professional development, communities of practice, and social media. Relating to professional development for educators in the United States, there is a need to make it more meaningful. An important finding is that most professional development is not engaging, not sustained over time, and limited on opportunities for collaboration. Communities of practice can provide a

theoretical lens to examine teacher professional development. There are several short-term and long-term benefits that communities of practice offer relating to professional development. Regarding social media, teachers have the opportunity to find professional development that is meaningful to them. There are issues that can prevent teachers from participating in online communities, but there is a growing body of literature that support teachers collaborating and sharing online.

CHAPTER III

METHODOLOGY

Introduction

Educators from around the world are regularly participating in synchronous chats on Twitter. An example of this is a group of educators who utilize an hour of their time outside of the contract day each week to connect with others through the #Oklaed chat. Almost two hundred educators and community stakeholders are actively participating each week in the #Oklaed chat, with an unknown number of people participating by reading the chat as it happens, a practice that is referred to as lurking. Although it is documented in literature that educators are actively participating in Twitter chats, what is less known is which educators are participating, why they are participating, what they do with what they learn in these conversations, what benefits, if any, educators see in their practice, and if such participation represents an evolution in Teacher Professional Development.

The purpose of this study is to use a community of practice theoretical lens to examine and understand who is participating in #Oklaed, why they are participating and what they do with what they learn in these conversations, and to determine what benefits, if any, educators see in their practice.

Research Questions

The research design for this study is intended to answer the following questions:

1. Who is participating in #Oklaed on Twitter?
2. In what ways can the #Oklaed hashtag on Twitter be viewed as a community of practice?
3. How is professional development evolving through the use of the #Oklaed hashtag on Twitter?

Research Design

The present study is anchored in a constructionist epistemology. A constructionist epistemology is based on the understanding that reality is socially constructed by the people who are experiencing that particular reality (Crotty, 1998). This epistemological stance allows for an examination of the Twitter hashtag #Oklaed through a qualitative case study.

This qualitative case study allows the researcher to explore what educators are doing with what they learn through Twitter. Case study defined by Yin (2013) is the investigation of a “contemporary phenomenon in depth and within its real world context” (p. 16). Stake (1995) complements this by stating that a case study is the “study of a particularity and complexity of a single case, coming to understand its activity within important circumstances” (p. xi). Yin lists five components that are important for case study: a) the study questions, b) propositions, c) units of analysis, d) the logic that links the data to the propositions, e) criteria for interpreting the findings (Yin, 2013).

A qualitative study will also give participants a voice, by allowing them to share why they are participating in #Oklaed. Yin (2013) states that a case is defined in two

steps: “defining the case and bounding the case” (Yin, 2013, p. 31). Defining the case by its “unit of analysis” is tied to the question that is being researched (Yin, 2013, p. 31). The research questions for this study center on social media posts shared through Twitter with #Oklaed included in the text of the tweet. To bound the case, “specific time boundaries” will define the beginning and the end of the case for the current study, Twitter posts with the #Oklaed hashtag that were posted from January 1, 2013 to February 28, 2017 (Yin, 2013, p. 33). This case study of #Oklaed is an intrinsic study of this particular Twitter hashtag. An intrinsic case study is used “when we need to learn about a particular case” (Stake, 1995, p. 3). The purpose of this particular case is not to create or build a theory, but to investigate a particular phenomenon (Baxter & Jack, 2008; Stake, 1995). In this case that particular phenomenon is the people who are tweeting with #Oklaed in the text of their tweets.

When doing qualitative research, triangulation of data is important to support findings from the research. Yin (2013) suggests six sources to use as evidence in a case study: a) documentation, b) archival records, c) interviews, d) direct observations, e) participant-observations, and f) physical artifacts. Sources that will be used for this research will include the tweets that were sent using #Oklaed as part of the text (archival records), a survey to elicit use of Twitter information from participants (documentation), participant observation, and interviews of Twitter users who have completed the survey.

Context and Participants

The #Oklaed Twitter chat occurs each week on Sunday at 8:00 p.m. CST and covers a variety of topics related to education in general, and sometimes educational topics specifically related to the state of Oklahoma. To participate in the #Oklaed chat,

all that is needed is a Twitter account and appending the hashtag #Oklaed in the text of a tweet. Each Twitter chat lasts one hour and has had participants from almost every aspect of the education process, including but not limited to: a) k-12 teachers, instructional technology staff, and administrators, b) school board members, c) the state superintendent of instruction, d) higher education professors, e) parents, f) high school and college students, and g) state elected politicians. Although the #Oklaed chat happens at a specific date and time each week, there are several tweets shared throughout the week using the hashtag #Oklaed in the text of the tweet.

Each chat is moderated by at least one person; however, some chats have had two or more. Moderators ask questions with a tweet that has the hashtag #Oklaed in the text (figure 2). Most moderators will follow a format of tweeting questions in a Q1, Q2, Q3 format, but some moderators have chosen to promote discussion in other ways. Figure 1 shows how a moderator could tweet a question during the #Oklaed chat. Not all moderators will include a graphic in their question tweet. Participants who wish to answer will reply to the questions with a tweet that shares an answer and will include the #Oklaed hashtag in the text of the tweet (figure 3). Most answers to the questions will use the format A1, A2, A3 in the text of their tweet. Some participants will quote the question tweet and include their answer above the question. Almost every chat begins by inviting participants to share their name and what they do. This gives the opportunity for all who are following the chat to see who is participating. There are no strict rules on how to participate in the #Oklaed chat: some participants are late and some participants will have side conversations. Some participants will answer one or two questions, some

participants will answer several questions, some people will only follow the chat and not tweet at all.

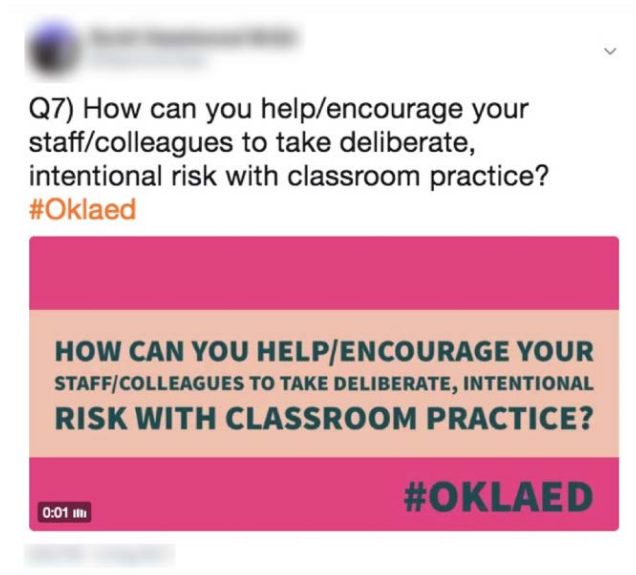


Figure 2. An example of a question shared by a moderator in an #Oklaed chat.

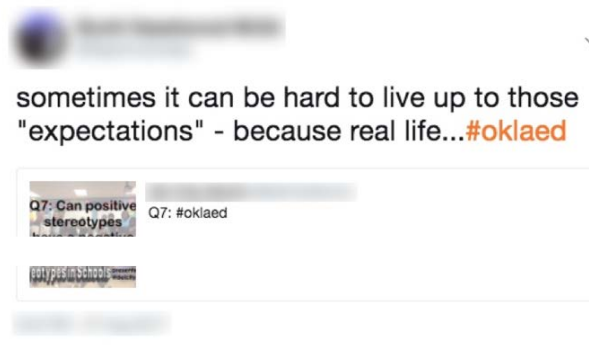


Figure 3. An example of a retweet that is answering a question from an #Oklaed chat.

Data Collection and Instrumentation

Sources of data for this research included observations of the #Oklaed Twitter chat, interviews, tweet analysis, and an online survey. All data that is collected and analyzed through the interviews, observation, tweets, and surveys will be used for

triangulation of any overarching themes or ideas that develop. Table 2 presents details on how research questions, purpose, required data, data source, are connected. It also provides details on who was contacted for access, as well as the data collection timeline.

Table 2

Research Questions, Data, Data Sources

Research Question	Purpose	Data that can answer the question?	Data sources?	Getting into contact	Collection Timeline
RQ1. Who is participating in #Oklaed on Twitter?	To determine who is participating in the #Oklaed conversation.	Analysis of Tweets, surveys, interviews	Tweets from archived/scraped data, survey of #Oklaed participants, interviews with #Oklaed participants	Tweet data is publicly available. Survey was shared electronically during #Oklaed chat and several times over a 14 day period, interview participants were contacted through Twitter with #Oklaed hashtag	Fall 2017
RQ2. In what ways does the #Oklaed hashtag on Twitter resemble a community of practice?	To determine in what ways #Oklaed community resembles a community of practice.	Analysis of Tweets, surveys, interviews	Tweets from archived/scraped data, surveys participation solicited through tweets, interviews with participants	Tweet data is already collected. Survey was electronically with #Oklaed hashtag, interview participants were sought through Twitter with #Oklaed hashtag	Fall 2017
RQ3. How is professional development evolving through the use of the #Oklaed hashtag on Twitter?	To determine in what ways teachers view Twitter for professional development.	Analysis of Tweets, surveys, interviews	Tweets from archived/scraped data, surveys participation solicited through tweets, interviews with participants	Tweet data is already collected. Survey was electronically with #Oklaed hashtag, interview participants were sought through Twitter with #Oklaed hashtag	Fall 2017

Note. This table outlines the research questions, the purpose of the question, the data that will be used to answer the research question, where data will come from, who will be contacted for data, and the collection timeline.

Observations

In a case study, “observations work the researcher toward greater understanding of the case” (Stake, 1995, p. 60). The researchers role as a participant observer of the #Oklaed chat and the #Oklaed hashtag in general, allows for “information to be recorded as it occurs” (Creswell, 2013, p. 191). Observation of the conversations that are happening in #Oklaed can help provide data that can be used to determine how well this online community represents a community of practice. Observations of #Oklaed can also reveal if participants are utilizing these conversations as a form of teacher professional development. For this study, the researcher is a participant observer, with an emic perspective, who has been active in tweeting and following the #Oklaed conversation.

Participants

To recruit participants to participate in a survey and an interview, a webpage was created to inform potential participants about the study and to get consent. The link to this website was shared through Twitter, with the link and the hashtag #Oklaed included in the text of the tweet (Figure 4). This tweet was shared twice per day over fourteen consecutive days. The text of the tweet was copied and pasted into Tweetdeck, where each tweet was scheduled to be posted. Tweets were shared at different times of the day, from early-morning to late evening. The webpage included an introduction to the study, procedures for those who chose to participate, risks, discomforts, and benefits, addressed confidentiality and compensation, who to contact regarding the research, and finally the email address for the Institutional Review Board (IRB). Included in the web page was the approved IRB application, the IRB appendix, and a link to the survey. This page received 120 views during time that tweets were shared with the link.

Those participants who read the web page and clicked to give consent were directed to a survey that was created using Google Forms. The last question in the survey asked participants if they would be willing to be contacted for an interview and, if they were interested, to share their Twitter handle. All communication for coordinating interviews was conducted through Twitter using direct messages.

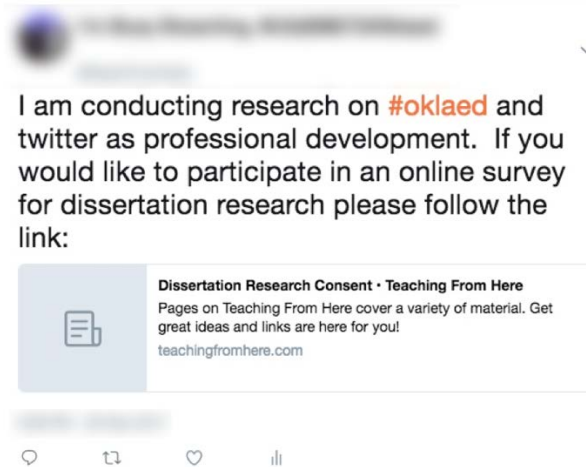


Figure 4. An example of the tweet shared seeking participants for research on #Oklaed.

Data Collection

Survey. The survey consisted of seven questions to understand how participants used Twitter, school policy related to Twitter, Twitter chats that participants joined, other social media platforms participants used, and would participants be willing to be interviewed. The survey used for this research was developed by Carpenter and Krutka (2014), and with their permission, some grammatical changes were made. These changes did not change the questions that were being asked but provided clearer answers for

participants to choose from. The survey had a total of eight questions, with the final question having four different parts (Appendix A).

This survey was created in Google Forms and linked to the consent web page that was shared through Twitter. When participants clicked the link to participate in the survey, they were taken to the Google Form. The survey was broken into two different parts, questions 1-7, which asked specific questions about the frequency and type of participation on Twitter. Each question from this section was required to be answered by the participant. The first four questions and question 6 had multiple choice answers, where only one choice could be chosen. Questions 5 and 7 had several different choices, and participants could choose all that applied. Questions 6 and 7 had a choice for “Other” and participants could provide their own answer.

The second part of the survey was one question with four parts, all of those parts were required to be answered. The first and third part of the final question were open response, allowing participants to submit answers that best represented their experiences. The second part of the final question was a list of hashtags and participants could choose all that applied to them. There was also a choice for “other” where participants could list any hashtags that were not already included in the question. The fourth and final part of the last question asked participants to share their Twitter username if they were interested in participating in an interview.

Interviews. Participants for interviews were chosen from the participants who completed the survey and indicated that they would be willing to be interviewed. Participants for interviewing were deliberately chosen for how they interacted with and follow the #Oklaed hashtag. Participants were chosen using purposive sampling to

represent the diversity of #Oklaed. There are specific reasons that each participant was chosen and Table 3 lists why each interview participant was chosen.

Table 3

Interview Participants and Reason for Being Interviewed

Participant	Reason for being asked to be interviewed
Participant 1	Infrequent tweeter to #Oklaed, but active follower of #Oklaed
Participant 2	Follows the #Oklaed hashtag, but has never tweeted into it (lurks)
Participant 3	Frequently tweets into and actively follows #Oklaed
Participant 4	Alternately certified teacher and frequent tweeter into #Oklaed
Participant 5	Lives outside of Oklahoma, but is a frequent tweeter to #Oklaed
Participant 6	Uses Twitter for professional purposes only and is a very active #Oklaed participant
Participant 7	District coordinator and regularly tweets to #Oklaed
Participant 8	Politically active, frequently delivers face to face PD, and seldom tweets into #Oklaed
Participant 9	District superintendent who has used Twitter for less than 2 years
Participant 10	Uses Twitter for professional purposes only and has been using Twitter for between 6 months and one year
Participant 11	Uses Twitter for professional purposes only but has been tweeting into #Oklaed for less than a year
Participant 12	Co-ELL coordinator and has used Twitter professionally for less than a year
Participant 13	Math teacher, department head follows the #Oklaed hashtag and rarely tweets into it

Interviews were semi-structured allowing the interview to develop rich descriptions of the interactions that are occurring (Appendix B). A semi-structured interview is flexible; it allows the participant being interviewed to respond their own words. This requires that the participant be able to understand the questions and gives the interviewer the ability to adjust to the way that a participant responds (Qu & Dumay, 2011). Interviews were recorded using the screencasting software Camtasia. Each interview was created as a unique file and the audio from the interview was exported as an audio file. Audio files were loaded into ExpressScribe, a dictation software, which assisted in the transcription of the interviews by slowing down or pausing the audio to make it easier to type what was being said. After the interviews were transcribed, they were emailed to each participant for member checking. In the mail that was sent with the

transcript, participants were asked to review the transcript for any errors or misunderstanding and answer four more questions (Appendix C). If participants had any issues, they were asked to contact the researcher to discuss any misunderstandings or miscommunications. Every participant returned an email of their transcript and there were no discrepancies reported except for a very minor issue in one transcript, which did not impact the nature of the conversation. Member checking gives the participant the opportunity to ensure that their voice is heard as it was intended. Once participants had reviewed and returned their transcripts with approval, the transcript was loaded into the qualitative analysis software Atlas.ti.

Participant 1. This interview was conducted through Google Hangouts Meet. The interview was conducted in one sitting and took approximately 35 minutes to complete. The interview took place during the participant's planning period.

This participant is a male educator in Oklahoma with 20 years of experience in education. He is currently a technology instructor and the Head of Instructional Technology in his school district. He described his school district as a suburban public-school district that serves students from kindergarten through 8th grade.

Participant 2. This interview was conducted through Google Hangouts after the participant's school day. The interview was conducted in one sitting, but the Google Hangout connection was lost in the first part of the interview and had to be restored. The audio for this portion of the interview was not kept. The audio recorded portion of this interview took approximately 47 minutes to complete.

This participant is a female educator in Oklahoma with 24 years of experience in education. She is a Pre-Kindergarten teacher, who is also serves as a library liaison in her

building. She describes her school district as a suburban public-school district that serves students from Pre-Kindergarten through 12th grade.

Participant 3. This interview was conducted through Google Hangout after the school day, but before the participant had left the office. The interview was conducted in one sitting and was interrupted halfway through by an announcement over the participant's school intercom system. The entire interview took approximately one hour and four minutes to complete.

This participant is a male educator in Oklahoma with 14 years of experience in education, with eight of those years coming as a classroom teacher and six of them as a building administrator. He is currently an assistant principal in his high school. He describes his school district as an urban public-school district.

Participant 4. This interview was conducted through Google Hangout after the school day, but before the participant had left the building. The interview was conducted in one sitting without interruption. The entire interview took approximately 38 minutes.

This participant is a female educator in Oklahoma with three years of experience and is alternatively certified. She is currently an English teacher and the department head. She describes her school district as a rural public-school district with students from kindergarten through 12th grade. Students in grades 6-12 attend the building where she teaches. This participant was asked for an interview because she is alternatively certified and shares tweets to the #Oklaed hashtag.

Participant 5. This interview was conducted through Google Hangout during the school day. There was a short delay from the beginning of the call until the interview started because this participant was in a classroom with a teacher. The interview was

completed without interruption in one session once it was started. The entire interview took approximately 59 minutes.

This participant is a male educator who lives outside Oklahoma with 24 years of experience, the last six as a building administrator. He is currently the principal of a middle school in a school district that he described as a rural. Since this participant resides outside the state of Oklahoma and is a frequent participant in the #Oklaed Twitter chat, he was asked to be interviewed.

Participant 6. This interview was conducted through Skype for Business and was done on the weekend. The interview was completed without interruption after it was started. The entire interview took approximately 37 minutes.

This participant is a female kindergarten educator in Oklahoma with eight years of experience. She was a classroom teacher for five years, then became a stay at home mom while her children were growing. She started teaching again three years ago in the 3rd grade classroom but moved to kindergarten when she had an opportunity to do so. She described her school as a Title One elementary school that teaches students from kindergarten to 6th grade. She described her school district as a suburban public-school district.

Participant 7. This interview was conducted through Google Hangouts and was done while the participant was in a school. The interview was completed in one sitting, without interruption after it began. The interview lasted approximately 42 minutes.

This participant is a female educator in Oklahoma with 10 years of experience. This past year she moved from an early childhood classroom to be an early childhood coordinator in her school district. She described her school district as an urban public-

school district. Since this participant is a district coordinator for early childhood education and regularly tweets into the #Oklaed hashtag, she was asked to be interviewed.

Participant 8. This interview was conducted face to face in a suburban coffee shop in the participant's community. The interview was completed in one sitting, with minor interruptions from the coffee shop staff. Once the interview began, it lasted approximately 1 hour 25 minutes.

This participant is a male educator in Oklahoma with 20 years of experience. He is a high school English teacher, who also has responsibilities with the College Board. He described his district as a suburban public-school district and his school as an affluent suburban high school. He is also politically active, running for a state Senate seat during a recent election cycle. For these reasons, and because he frequently travels to deliver face to face professional development and follows the #Oklaed hashtag, but seldom tweets into it, are why he was asked to be interviewed.

Participant 9. This interview was conducted through Google Hangout, with the participant not using the video feature. This was the first time for this participant to use Google Hangouts. However, there were no issues. He shared that a "tech guy" was in the room. Once the interview began, it lasted approximately 38 minutes.

This participant is a male educator in Oklahoma with 25 years of experience, with 10 of those years in the classroom, and 15 years as a superintendent. He is currently a district superintendent of a school district that he describes as a rural public-school district that teaches Pre-Kindergarten through 12th grade. Because he is a district

superintendent and a frequent contributor to the #Oklaed hashtag, he was asked to be interviewed.

Participant 10. This interview was conducted through Google Hangouts, there were some audio issues, so the initial video call was disconnected and reset. There was a minimal delay between the end of the first call and the beginning of the second call. Audio did improve, but there were some issues that occasionally occurred with audio during the second half of the interview. The interview took place over a weekend, with the participant using Hangouts from home. Both parts of the interview combined to last approximately 57 minutes.

This participant is a female educator in Oklahoma with 13 years of experience and she is currently one of her district's instructional coaches. She described her school district as a rural public-school district that teaches students from Pre-Kindergarten to 12th grade.

Participant 11. This interview was conducted through Google Hangouts on a weekend when the participant was at home. The interview was completed in one sitting without interruption. The interview took approximately 51 minutes to complete.

This participant is a female educator in Oklahoma with five years of experience. She is currently a high school English teacher. She described her school district as a rural public school and that her high school teaches 10th grade through 12th grade.

Participant 12. This interview was conducted through a Google Hangout during a weekday evening when the participant was at home. The interview was completed in

one sitting, with a small interruption from a family member and another from the family dog. The interview took approximately 45 minutes to complete.

This participant is a female English educator and Co-ELL Coordinator in Oklahoma with three years of experience. She is currently working at an alternative secondary school and describes her school district as an urban public-school district.

Participant 13. This interview was conducted through Google Hangouts while the participant was at school. The original Hangout was sent to school email, however the district blocks the Hangout feature. As a result of this issue, the participant created an individual Hangout account, and with help from district technology people in the building, was able to connect to a second Google Hangout invite. The participant moved from the media center to a classroom for the interview. The interview was completed in one sitting and took approximately 37 minutes to complete.

Tweet Analysis. Twitter data was obtained through a computer program that scraped public tweets with the #Oklaed hashtag as part of the text. All tweets from

January 1, 2013 through February 28, 2017 have been saved to a spreadsheet creating a data rich archive of the #Oklaed hashtag.

To obtain historical data for analysis, two strategies were used: 1) Using Twitter search API and 2) Using Java program to scrape data from Twitter.com advanced search page.

The first method used Twitter official search API in PHP program. This method however, is limited to only retrieving data for the past ten days from a selected current date and time due to the limitation set by Twitter company. As a result, we could not use this API to collect the desired historical data.

The second method used a JAVA program to scrape tweet data from an advanced search page on the Twitter.com website. A scraping program was found at <https://github.com/Jefferson-Henrique/GetOldTweets-java>. The program was able to obtain a significant data set for the selected time and dates.

The tweet analysis complemented the survey data and the interviews, providing triangulation for qualitative analysis. The Twitter data was stored in a spreadsheet, to allow the information to be sorted and analyzed for the key themes and topics that are developed through the survey and the interviews. This data set was also be used to provide a description of who is participating in #Oklaed and the growth of the hashtag.

Data Analysis

Survey. Survey data was analyzed for potential interview participants. There are three specific types of participants that are being interviewed: a) frequent tweeter, b) infrequent tweeter, and c) lurker. The survey specifically asked about the frequency of use of Twitter and asked if participants would be willing to be interviewed.

Interviews. Interviews will be transcribed and member checked; additionally, interview participants will be asked an addition four questions (Appendix C) that helped identify their experiences. Once the transcripts have been member checked, they will be reviewed for themes that develop and coded. The use of the qualitative analysis software Atlas.ti will be used to help organize the transcripts and the coding process.

Tweet Analysis. The tweet analysis will complement the survey data and the interviews, providing triangulation for qualitative analysis. The Twitter data will be stored in a spreadsheet, which will allow the information to be sorted and analyzed for the key themes and topics that are developed through the survey and the interviews.

This data set will also be used to provide a description of who is participating in #Oklaed and the growth of the hashtag.

Communities of Practice. Wenger shares several different indicators that can be used to identify a community of practice. The data collected will be analyzed to determine which, if any, of the indicators are present.

Coding. Coding for the interviews and the text of the tweets followed the steps outlined by Creswell (Creswell, 2013). All data was organized and prepared for analysis. Regarding the interviews, field notes were taken during the interview to document the setting of the interview and to note anything significant at the time the interview occurred. All interviews were digitally recorded to assist in transcribing the interview. After the interview was recorded, the audio file was uploaded into transcription software

to assist with the transcription of the audio file into a text based document. The audio file and the transcription were then uploaded into Atlas.ti for analysis.

Atlas.ti was used to organize all of the different text and audio files that were collected. This program assisted in coding by searching all of the documents for key words and codes that were revealed by reading the interview transcripts.

After all interviews were member checked and returned, any issues or points of contention were addressed. Once the transcriptions were approved, all transcripts were read to get an idea of important thoughts and impressions. As the transcriptions were being read, notes were kept on themes, ideas, and topics that developed and were recorded in Atlas.ti. Anything that was of interest was noted in the margins of the transcript to review later.

Once the review of the transcriptions was complete, coding took place based on the themes, ideas, and topics that were generated by the interview participants. Codes for this research were determined by the participants, not the researcher. The use of predetermined codes was not used for this research. To develop codes, all of the data was read to get a general feeling of what was being said, what was important. The second step was to do a detailed analysis of two of the interview transcriptions to develop specific codes that could be used across all of the documents. After these codes were developed, Atlas.ti was used to help locate these codes in other documents. After each of the interview transcriptions had been coded, Atlas.ti was used to show a list of the codes, the frequency of each code, and the frequency that each code appeared in each document. This led to four distinct themes from those codes: a) community, b) professional development, c) political, and d) agency. There was strong evidence for community,

professional development, and political to be included for analysis. Agency did not have enough data to pursue at this time.

When coding was complete, the codes generated informed the categories that were analyzed. A description of the category and the codes that fit into it were used to give detailed descriptions of what is happening through the experiences of the participants. The categories and their descriptions are represented through narrative and tables and should reveal the major findings of this research. Finally, there is an interpretation of the findings.

Role of the Researcher

As an active participant in #Oklaed, I have a very emic perspective of what occurs in this space. I am very active in tweeting to and reading through the #Oklaed thread on Twitter, and the data collected during the time frame of this study will show that I have shared the most tweets with #Oklaed in the text. I have been participant observer of the #Oklaed hashtag since November 2013 and a regular participant in the #Oklaed Twitter chat. I have moderated several #Oklaed chats as well, and as a result of my participation, I have developed relationships with several different users who have tweeted into #Oklaed. Some of those people are represented in the survey, and a few of them were included in the interview process. To choose the interview participants, I was very aware of the research criteria described in this chapter and worked to ensure that those participants who were interviewed matched the criteria listed.

CHAPTER IV

FINDINGS

Introduction

This study uses a community of practice theoretical lens to examine and understand who is participating in #Oklaed, why they are participating and what they do with what they learn in these conversations, and to determine what benefits, if any, educators see in their practice. This chapter presents the result of the study in three phases. In the first phase of the research, a survey was developed to get an understanding of how teachers are using Twitter. The second phase of the research involved identifying and interviewing willing participants from the survey. And finally, combining the survey and interview data with all of the collected Twitter data for analysis.

RQ 1: Who is Participating in #Oklaed?

Twitter is a platform where arguably anyone around the world with access to the internet can participate. Hence it is possible that the people participating in #Oklaed can be located anywhere in the world. As noted in chapter 3, data that answers the question, *who is participating in #Oklaed* were obtained through a survey questionnaire, publicly available data on Twitter, and interview questionnaires.

Publicly Available Data

To obtain the answer to the research question, the researcher examined the text of the tweets, which informs who is participating in the #Oklaed chat and conversation. Participants identified themselves as (Figure 5) teachers, public school administrators (both district and building), higher education faculty, elected public officials, high school students, pre-service teachers, parents, and school board members. There are participants from private schools, public schools, and charter schools. This was noticed by Participant 12 who said “*we have administrators, teachers, we’ve got pre-service teachers, grad students and even higher ed professors that participate.*”

Parents	<ul style="list-style-type: none"> •Parent Edmond #Oklaed •Angela XXXX Edmond Parent Sr Data Mgmt Analyst @ Devon Energy Public Ed Advocate #Oklaed •Excited to be at the Capitol as a parent today requesting at least \$150 million for K-12 education! #Oklaed •Gotta bail out... parent chauffeur time... :-(#Oklaed •Melissa XXXX- PLAC parent; XXXX Board #Oklaed
Elected Officials	<ul style="list-style-type: none"> •@DrTxxxxx @Jonnyxxxxx @Sehxxxxxx Yes, I remember that day! It was also the day I started my own Twitter account. #Oklaed •@brixxxxx @Chrixxxxx @grxxxxxxx @shaxxxxx OK Constitution, Sup. Court say Legislature has responsibility for # •A4) remember that legislators are people too and definitely like to be thanked. It's our job, but appreciation never gets old. #Oklaed
Superintendents	<ul style="list-style-type: none"> •Learning has to be fun IMO. #Oklaed students who are well rounded are given more opportunities to be successful https://twitter.com/xxxxxx/status/803059141954547712 â€ •A3 #Oklaed If you go to a session, and you're not feeling it, go look for something else. Like a donut. https://twitter.com/xxxxxx/status/836039543094657024 â€
Building Administrators	<ul style="list-style-type: none"> •A4: This graphic is a go-to when I'm sharing with teachers & staff. #Oklaed pic.Twitter.com/UujiGRgOKW •A2b: Another example, stolen from #edchat- Sharing my 1st yr Admin story, vlog style http://tinyurl.com/hehbb67 #Oklaed #wyoedchat
PreService Teachers	<ul style="list-style-type: none"> •Hi, I'm Emily, a preservice teacher at #okstate jumping in. A3: I think there should be a form of recess for all ages. #Oklaed #wk12edtc •Hi! My name is Alaina and I am a preservice teacher at #okstate my favorite recess activity was four square! #Oklaed #wk12edtc
High School Students	<ul style="list-style-type: none"> •@xxxxxxx: I am a high school student who has some questions about state testing where would I go to find info? @joxxxxx" #Oklaed" •Greetings #Oklaed! Jxxxxx, Chickasha Senior (And @ChickStuCo Pres @Blxxxxxx)

Figure 5. PLAC is an acronym for the Parent Legislative Action Committee. Elected officials whose tweets were used were the state superintendent of public education and two different state representatives.

Survey Questionnaire

In addition to the data available publicly, a survey was used to obtain information on how educators are using Twitter. The survey link was posted on twitter, with #Oklaed appended to the end of the tweet (figure 4) and yielded 56 responses (n=56). The choice of this method of data collection was to increase the likelihood that Twitter users who follow the #Oklaed hashtag or follow the Twitter account of the researcher (@teachfromhere) would see the message.

Participants were asked to self-report how long they have been using Twitter. These results (table 4) show that a majority of participants, 73% (n=41), have been using Twitter for over three years, while 11% of participants (n=6) reported using Twitter for less than two years.

Table 4

Length of Time Users Have Been On Twitter

How long have you been using Twitter? (choose one)	Total
3 years or more	41
Less than 3 years, more than 2 years	9
Less than 2 years, more than 1 year	4
Less than 1 year, more than 6 months	2
Grand Total	56

When asked how long they had used Twitter professionally, 45% of participants (n=30) reported that they have been using Twitter professionally for more than three years (Table 5). There were 16% of participants (n=9) who have been using Twitter professionally for less than two years.

Table 4

Length of Time of Professional Use of Twitter

How long have you been using Twitter professionally? (choose one)	Total
3 years or more	30
Less than 1 year, more than 6 months	4
Less than 2 years, more than 1 year	5
Less than 3 years, more than 2 years	13
Less than 6 months	4
Grand Total	56

As table 6 reveals, a majority of participants, 52% (n=29), use Twitter multiple times per day. There were 14% of participants (n=8) who used Twitter weekly and 11% of participants (n=6) whose Twitter use varies.

Table 5

Frequency of Twitter Use

Typically, how frequently do you use Twitter? (choose one)	Total
Daily	13
Frequency of use varies	6
Multiple times per day	29
Weekly	8
Grand Total	56

A question asking participants to identify whether their use of Twitter as professional, personal, or both (Table 7), found that 78% (n=44), use Twitter for both professional and personal purposes. There were 19% of participants (n=11) who use Twitter for professional purposes only.

Table 6

Professional Versus Personal Use of Twitter

Professional vs. personal use of Twitter (choose one)	Total
I use Twitter for personal purposes	1
I use Twitter for professional and personal purposes	44
I use Twitter for professional purposes	11
Grand Total	56

When asked how they used Twitter professionally, 84% of participants (n=47) chose sharing resource as a way they used Twitter (Table 8). Collaboration with other educators, participating in Twitter chats, and backchannelling were chosen by 82% of participants (n=46). There were 80% of participants (n=45) who use Twitter for networking.

Table 7

How Twitter is Being Used Professionally

Professional Purpose	Total
Resource Sharing	47
Collaboration with other educators	46
Networking	45
Emotional Support	19
Communication with parents	7
In-Class activities for students	7
Participate in Twitter chats	46
Backchannelling	46
Other	8

One item asked participants who teach in a school district what the district policy is regarding Twitter (Table 9). Participants could only choose one of the options. There were several different responses to this question, with 38% of participants (n=21) saying that Twitter is allowed for teachers and students. 29% of the responses (n=16) reported that Twitter was allowed for teachers.

Table 8

School District Twitter Policy

If you teach in a school district, what is your district policy on Twitter?	Totals
Allowed for teachers	16
Allowed for teachers and students	21
Blocked for everyone	7
Blocked on campus, I cannot use social media to contact current or former students, I cannot post about students due to HIPPA	1
I actually have no clue so might be it is allowed.	1
I am a School Psychologist	1
I teach at a university	1
I'm not sure!	1
NA	2
No policy formalized.	1
No policy that I am aware of	1
Not in a school district	1
not sure	1
University professor with K-12 experience	1
Grand Total	56

Participants were asked about their use of other social media platforms by selecting from listed platforms, or submit any platforms not listed (Table 10). The two most popular social media platforms were Facebook 88% (n=49) and Pinterest 59% (n=33).

Table 9

Non-Twitter Social Media Platforms Used

Other Social Media Used	Totals
Facebook	49
Instagram	37
Pinterest	33
Course Management System Tools (Edmodo, Gagggle, Schoology, MyBigCampus, Moodle etc.)	26
LinkedIn	20
Other	7
Tumblr	5
Snapchat, Paper.li	2
Scoop.It, Google Plus, Remind, Strava, Slack, Voxer, Flipgrid	1
Ning, Foursquare	0

The final question asked participants to explain what aspects of Twitter they found most valuable and why. There were several responses that shared the ease with which resources could be shared, the opportunity to grow a personal learning network, and the ability to find professional development.

The second part of this question asked participants to choose from a list of hashtags; they could choose all that applied, and participants could add other hashtags that were important to them as well (Table 11). #Edchat was one of the choices and 43% of the respondents (n=24) chose this hashtag. The other hashtag that received several responses was #Oklaed, and it was not one of the choices; participants had to list this as an “other”, 52% of participants (n= 29) added this hashtag.

Table 10

Hashtags Used or Followed to Connect With Other Educators

Which hashtags do you regularly use, or search for, to connect with other educators?	Totals
#oklaed	29
#edchat	24
#edpolicy, #satchat	6
#edtech	5
#mathchat, #elemchat	4
#engchat	3
#3dprinting, #tlchat, #sschat, #edtechchat, #elaok	2
#wischat, #TWOTCP, #wyoedchat, #tnedchat, #tlap, #stem, #scicomm, #scichat, #principalsinaction, #piachat, #oksci, #oklasupt, #oklasaid, #okela, #NSUEngEd, #mtedchat, #MTBoS, #mpschat, #momsasprincipals, #miched, #memspachat, #MakingLiberation, #makerspace, #makered, #leadupchat, #leadLAP, #kidsdeserveit, #iaedchat, #hiphoped, #gtchat, #googleforEDU, #GCampOKC, #gafe, #fablearn, #edtechecu, #edreform, #ditchbook, #cvtechtalk, #cvtechmakers, #coachchat, #blendedlearning, #1coolthing, #21stedchat	1
N/A	4

The third part of this question asked participants what hashtags they regularly participated in for weekly/monthly chats (Table 12). There were 37 hashtags for moderated chats that were shared, and the #Oklaed chat given by 70% of participants (n=39). 16% of respondents (n=9) do not participate in moderated chats.

Table 11

Hashtags for Weekly/Monthly Chats Regularly Participated In

Please list the hashtags (e.g., #edchat) for any moderated weekly/monthly chats in which your regularly participate.	Totals
#oklaed	39
#ditchbook	4
#satchat #leadupchat	3
#edchat, #tlap, #hiphoped, #kidsdeserveit	2
#betheone, #adechat, #blendedlearning, #celchat, #cvtechtalk, #diverged, #ECEchat, #elchat, #fablearn, #fitnessedu, #globaledchat, #iaedchat, #ksed, #MasterChat, #memspachat, #mtedchat, #NadoNation, #nctechat, #NSUEngEd, #nvedchat, #okelem, #piachat, #rethinkELA, #sblchat, #teacherfriends, #TEDEdChat, #whatisschool, #wischat, #wyoedchat	1
I used to do #oklaed but quit because it began feeling redundant.	1
None	9

Twitter Data

Using the data that was scraped from Twitter, it was possible determine the top ten most frequent users who tweeted with #Oklaed in the text are listed in Table 13. In this table are two public school superintendents, three classroom teachers, one of whom is retired, two directors of instructional technology, one associate director for a university education research and development center, one program manager for a robotics company that works with middle and high school students, and one advocacy group.

Table 12

Top 10 Most Frequent Users Whose Tweet Contains #Oklaed

Username	Amount of Tweets Sent
TeachFromHere (* researcher)	5469
coach57	5299
wfryer	5298
MrsBeck25	4670
James409Jason	4300
ClaudiaSwisher	4107
BlueCerealEduc	4031
ChrisParadise	3520
bridgestyler	3486
OSSBAoklahoma	3439

The top ten most retweeted tweets with #Oklaed in the text are listed in Table 14.

This table represents one nationally recognized author, three public school superintendents, one advocacy group, one public school district, one state superintendent of instruction, an educational technology coordinator, and news reporter.

Table 13

Top 10 Most Retweeted Tweets with #Oklaed

Username	Number of Retweets	Number of Favorites	Tweet Text
ToddWhitaker	557	460	If teachers go into each other's classrooms the knowledge of one becomes the knowledge of all. #Oklaed #IAedchat
OKPE4PE	529	20	Here is a full list of #Oklaed candidates for 2016!! https://drive.google.com/file/d/0BxK1BFvY6f0KM1YtWDFUMFVqSHc/view?pref=2&pli=1 â€
deborahgist	465	495	Did you miss it? It's all good. The @radiodisney Music Awards are back on w @justinbieber surprising our students at Central HS! #Oklaed @MrsBeck25 @coach57 @wfryer @JonnyCurriculum @vperezy @elynnlll @jlgathright @MrRogersTech @jaherbel #Oklaed
TParks	461	17	ROCKS! pic.Twitter.com/tVLwOo9t96
EdmondSchools	289	220	BREAKING: BOE votes to shorten 2015-2016 school calendar by two days. The last day of school will now be Friday, May 20. #Oklaed
OKPE4PE	204	7	SD 41 - Adam Pugh needs your vote on June 28th!! #Oklaed pic.Twitter.com/6Lz1Eqm9gy
joy4ok	186	173	EOIs = \$6,949,129/yr. ACT = \$1,547,070/yr. ----- OK saves \$5,402,059/yr. by replacing EOIs w/ACT. #Oklaed
emorybryan	180	112	Salaries: teachers vs @QuikTrip. Clerks start at \$39k w/ raise 6 mos later; where Tulsa teachers are w degree & 13 yrs exp @NewsOn6 #Oklaed pic.Twitter.com/ZYqhvI6JpA
coach57	174	95	This says it all: â€œStudents who are loved at home, go to school to learn, and students who arenâ€™t, go to school to be loved.â€ #tlap #Oklaed
middelsupt	168	156	We lost a teacher today to a job in a correctional facility. Let that sink in... #Oklaed #DoSomethingOK

Interview Participants

Participants of the survey were asked if they would be willing to take part in an interview regarding their use of Twitter and how they participate in #Oklaed. There were

41 survey participants who were willing to be interviewed. Further contact to arrange interview times was completed using the direct message feature of Twitter.

Participant 1. This participant has been on Twitter for more than three years and using Twitter professionally for more than three years. He uses Twitter for both professional and personal purposes. He uses Twitter multiple times per day, and when using Twitter for professional purposes is interested in sharing resources, collaborating with educators, networking, participating in Twitter chats, and backchannelling. This participant finds Twitter to be valuable because it is possible to share and learn from others. He also enjoys finding resources of interest. Since he follows #Oklaed but does not often tweet into the #Oklaed hashtag, this participant was asked to be interviewed.

Participant 2. She has been on Twitter for more than three years and has used Twitter professionally for more than three years. She uses Twitter for both professional and personal purposes. She uses Twitter daily, primarily for resource sharing, collaborating with others, networking, and participating in Twitter chats. This participant shared that Twitter offered several things that were valuable to her. She likes that the length of the tweet makes it easy to read large quantities and large varieties of posts. She finds that it is an easy way to develop a professional learning network, and uses hashtags as a search engine. Because she follows the #Oklaed hashtag but has never tweeted into #Oklaed, she was asked to be interviewed.

Participant 3. He has been on Twitter for more than three years and has used Twitter professionally for more than three years. He uses Twitter for both professional and personal purposes. His frequency of using Twitter varies, but he does use Twitter to collaborate with other educators, network, and participate in Twitter chats. He finds that

Twitter is easy to use. This participant follows the #Oklaed hashtag and frequently tweets into the #Oklaed chat and for this reason that he was asked to be interviewed.

Participant 4. This participant has been on Twitter for more than two years, but less than three and has used Twitter professionally for the same amount of time. She uses Twitter multiple times per day for both personal and professional purposes. When she is using Twitter for professional purposes, she is wanting to share or acquire resources, collaborate with other educators, network, get emotional support, communicate with students, communicate with parents, uses Twitter for in-class activities with her students, and participates in Twitter chats. This participant likes that Twitter gives her the ability to talk with other teachers around the country, teachers she would never meet in real life. She likes that she can grow her professional learning community and is not restricted to people that she knows. She can use Twitter for quick access to information and resources.

Participant 5. He has used Twitter for over three years and has Twitter for professional purposes for over three years. He uses Twitter weekly for both personal and professional purposes, and when he is using Twitter professionally, he is interested in resource sharing, resource acquiring, collaborating with other educators, networking, emotional support, participating in Twitter chats, and backchannelling. He likes that there are so many resources and expertise that can be accessed on Twitter.

Participant 6. She has used Twitter for over three years and has used it for professional purposes for over three years. She uses Twitter every day for professional purposes only, finding and sharing resources, collaborating with other educators, networking, and participating in Twitter chats. This participant finds that Twitter is

valuable to her because of the connections she has been able to make through Twitter chats and her professional learning network. She has had the opportunity to meet educators that she would have never met before. She has also been encouraged to try new things, to stay true to her beliefs about education, and putting students first. Because this participant uses Twitter for professional purposes only and is a very active participant on the #Oklaed hashtag, she was asked to be interviewed.

Participant 7. This participant has used Twitter for more than three years and has used Twitter for professional purposes for over three years. She uses the platform weekly for both personal and professional purposes, and when using Twitter professionally, she is sharing or acquiring resources, collaborating with other educators, networking, and participating in Twitter chats. She likes that Twitter can facilitate resource sharing with other educators and likes the opportunity to connect with other educators.

Participant 8. He has used Twitter for over three years and has used Twitter for professional purposes for over three years. He does use Twitter for professional and personal purposes, and when using Twitter professionally, he collaborates with other educators, networks, uses it for emotional support, and participates in Twitter chats. Aspects of Twitter that he finds valuable is it can be used for quick interaction and inspiration. He is also surprised at the detailed pedagogical conversations that can occur on the platform.

Participant 9. He has used Twitter for less than two years, but more than one year, and has used Twitter for professional purposes for the same amount of time. He uses Twitter multiple times per day and uses it for professional purposes. He uses

Twitter to share and acquire resources, collaborate with other educators, networking, and participating in Twitter chats. Aspects of Twitter that this participant finds valuable is that there are professional development resources that are immediately available and unlimited.

Participant 10. She has been using Twitter for less than two years, but more than one year. She has been using Twitter for professional purposes for between six months and one year. She only uses Twitter for professional purposes and when using Twitter she shares or acquires resources, collaborates with other educators, networks, finds emotional support, and participates in Twitter chats. Aspects of Twitter that she values include finding resources for technology in education, 21st century learning, and growth mindset. Because she has used Twitter for professional purposes for less than one year, is a follower of the #Oklaed Twitter chat, but not a frequent contributor, she was asked to be interviewed.

Participant 11. She has used Twitter for longer than three years but has only used Twitter professionally for less than one year, but more than six months. She uses Twitter multiple times per day and uses it for personal and professional purposes. When she uses Twitter for professional purposes, she is collaborating with other educators and participating in Twitter chats. The aspect of Twitter that she values most is for national and local news updates. Since this participant has been using Twitter for professional purposes for less than a year but regularly contributes to the #Oklaed hashtag, she was asked to be interviewed.

Participant 12. She has used Twitter for less than one year and longer than six months and has used Twitter professionally for the same amount of time. She only uses

Twitter for professional purposes and uses it to collaborate with others and participate in Twitter chats. The aspects of Twitter that she values is the opportunity to connect with other educators. Because this participant has used Twitter professionally for less than a year and is a Co-ELL coordinator, she was asked to be interviewed.

Participant 13. She has been using Twitter for over three years and has been using Twitter for professional purposes for over three years as well. She uses Twitter for personal and professional purposes, and when using Twitter for professional purposes, she shares or acquires resources, networks, and participates in Twitter chats. The aspects of Twitter that she values is the ability to find new resources for math and technology. Because she is a math teacher, a department head, and she follows the #Oklaed hashtag, but rarely tweets into it, she was asked to be interviewed.

RQ 2: In What Ways Does #Oklaed Resemble a CoP?

The purpose of this question was to identify in what ways the #Oklaed community on Twitter resembles a community of practice. As noted in chapter 3, data that answers the question, in what ways does the #Oklaed hashtag on Twitter resemble a community of practice were obtained through a survey questionnaire, publicly available data on twitter, and interview questionnaires. Wenger (1998) developed the indicators in figure 13 to use when determining if a CoP exists. The data for this question will be presented according to the indicators.

Community of Practice Indicators



Figure 6. CoP Indicators that are visible in #Oklaed.

Headings in this section will use Wenger’s Community of Practice Indicators to indicate which indicators are being analyzed (Figure 6).

Sustained mutual relationships. The #Oklaed community started to develop in early 2013 with a few participants, the first chat had 61 participants and 391 tweets. Over time that has grown, and for the data available in 2017, there was an average of 653 tweets shared by an average of 96 different Twitter users. Over time, there have been different participants who have come and gone, but the number of participants and the number of tweets has increased. Some of the participants from the first chat were still active when data collection was completed in 2017.

Participant 2 described #Oklaed in this way in her interview *“It is a community across Oklahoma of public school teachers at all levels and subject areas...Because people are saying similar things and you know, even though we are in different parts of*

the state and wildly different districts as far as, like, rural or urban, we still have some of the same issues that we are working toward improving together.” Similarly, Participant 3 said *“That we have some really, really cool people in our state that, if we didn’t have the internet, didn’t have social media and platforms to communicate on, **we would be missing out on so much (emphasis hers).**”* Participant 9, who is a district administrator share that *“But I think a lot of times I see comments made during those conversations, its great to know that we can talk to each other.”* Participant 5, who does not live in Oklahoma had this thought *“Its sort of weird, even if you are not directly participating in the chat, there is still plenty of friends from oklaed chat that I communicate with.”*

From Twitter there were the following tweets:

- Hey #Oklaed community has anyone used @goformative in the classroom?
Great online tool for the classroom <http://goformative.com/>
- What an experience! Still have to get used to this whole Twitter thing, but I love the community atmosphere of Twitter chats! #Oklaed

Shared ways of engaging and doing things together. The #Oklaed hashtag has been used in the text of a tweet over 200,000 times (Table 15) and there have been over 5,000 unique users who have tweeted with #Oklaed in the text of the tweet (Figure 13). People are engaging others in this space. The growth of the number of tweets with #Oklaed in the text since it was first used shows that educators are engaging frequently.

Since its inception, the #Oklaed community has grown steadily over the years. By the end of January 2013, there were 204 tweets sent with the #Oklaed hashtag. On February 24, 2013, the first #Oklaed chat took place and had 391 tweets from 61 different Twitter users. As stated in chapter 3, for the purpose of this dissertation, data that is

considered part of the #Oklaed chat are tweets that are sent between 8:00 p.m. CST and 9:00 p.m. CST every Sunday.

Using February 24, 2013 as the starting point and looking at the #Oklaed chats through February 28, 2017, figures (6-10) shows that each year the number of tweets and number of participants in the #Oklaed chat have increased. Chat data is displayed by week instead of date, making it easier to compare across years. 2013 chat data (Figure 7) starts with the first #Oklaed chat in week 7. Data for the final two chats for 2013 (weeks 49 and 50) was incomplete: week 49 is included because there was more than 100 tweets capture, week 51 was not becausee there were less than 20 tweets captured.

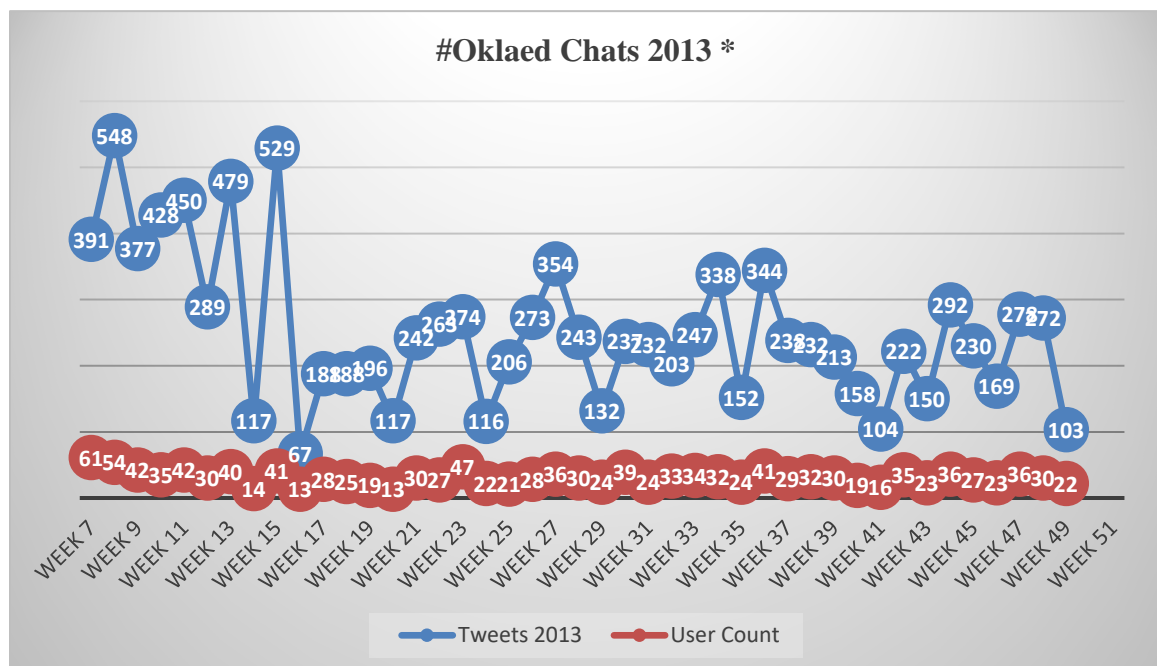


Figure 7. #Oklaed Chats 2013 Average Tweets/Chat = 253.0; Average User Count/Chat = 30.4; Total Tweets for 2013 Chats = 10,881; Tweets/Min = 4.2 *Late Feb thru Mid-Dec. Data for the last two chats of 2013 is incomplete and were not included

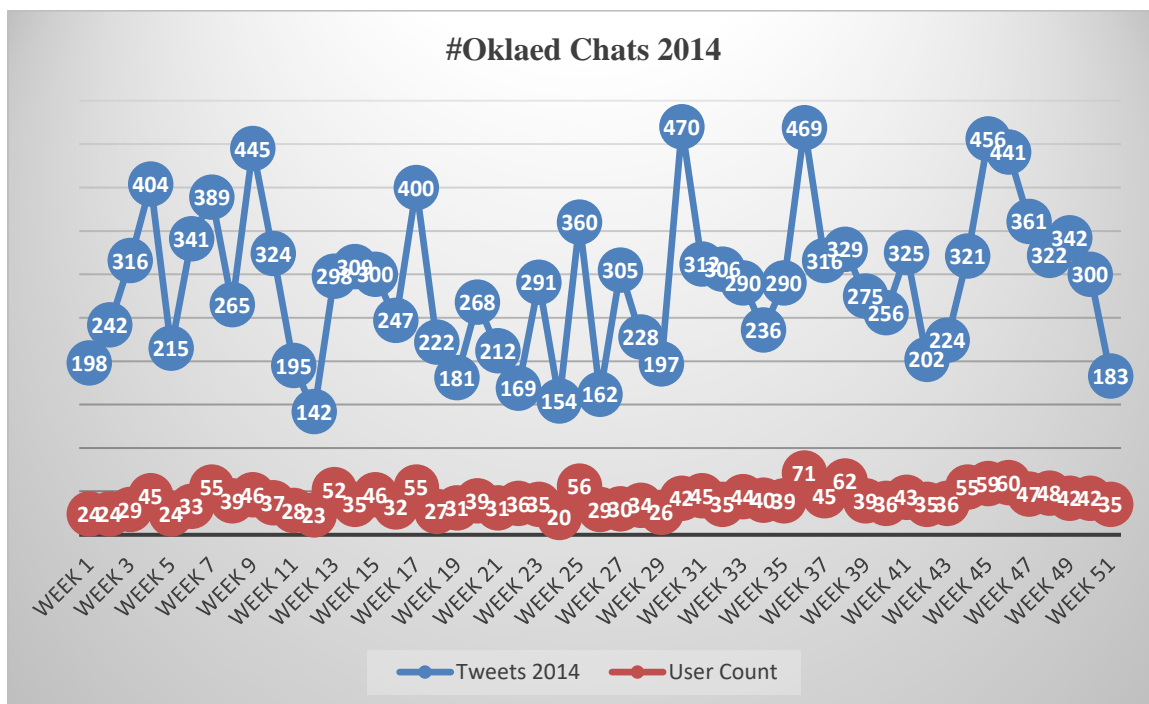


Figure 8. #Oklaed Chats 2014
Average Tweets/Chat = 290.3; Average User Count/Chat = 39.6; Total Tweets for 2014 Chats = 14, 805; Tweets/Min = 4.8

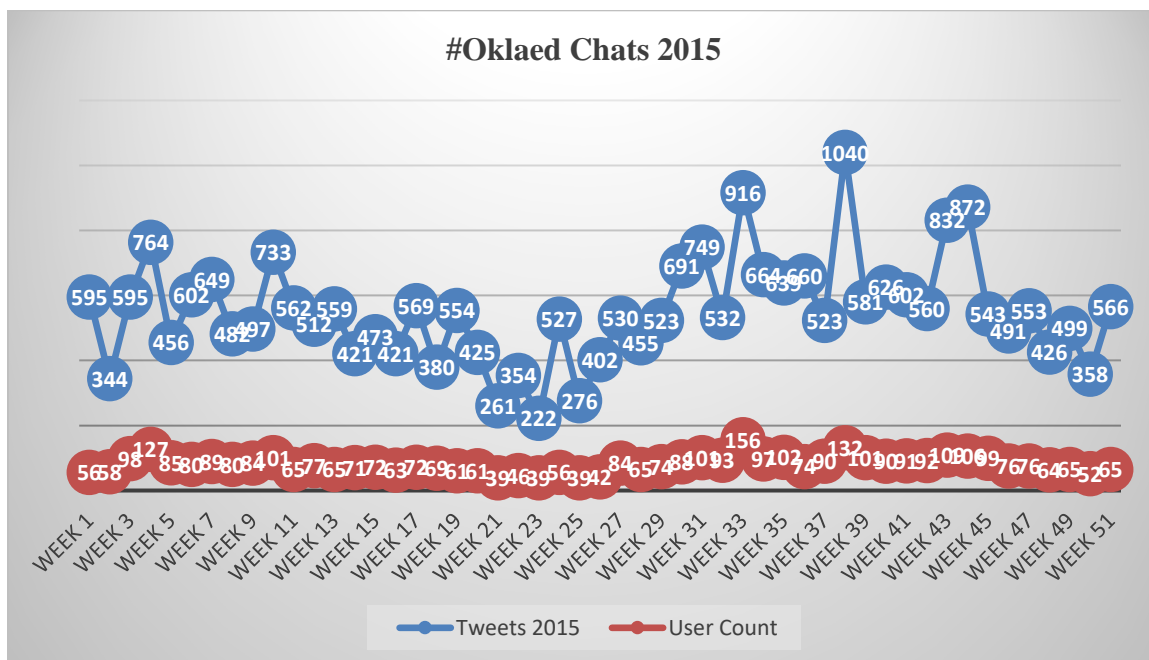


Figure 9. #Oklaed Chats 2015
Average Tweets/Chat = 550.3; Average User Count/Chat = 79.2; Total Tweets for 2015 Chats = 28, 066; Tweets/Min = 12.7

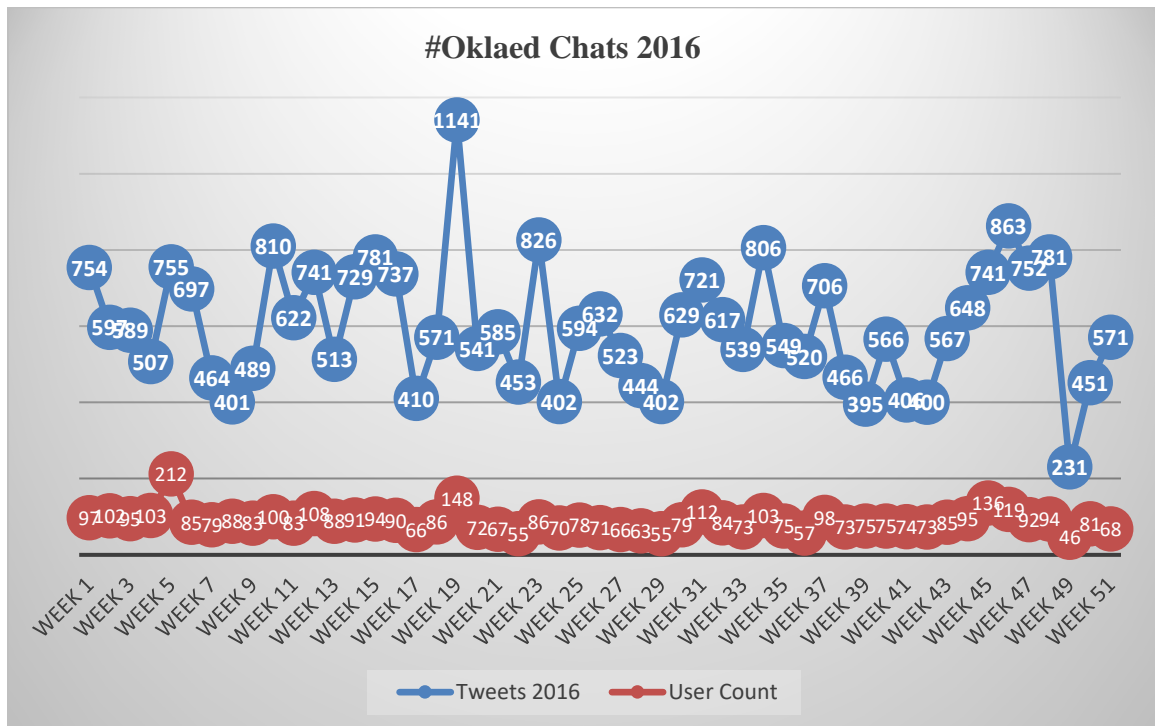


Figure 10. #Oklaed Chats 2016. Average Tweets/Chat = 600.7; Average User Count/Chat = 87.2; Total Tweets for 2016 Chats = 30,635; Tweets/Min = 10.0

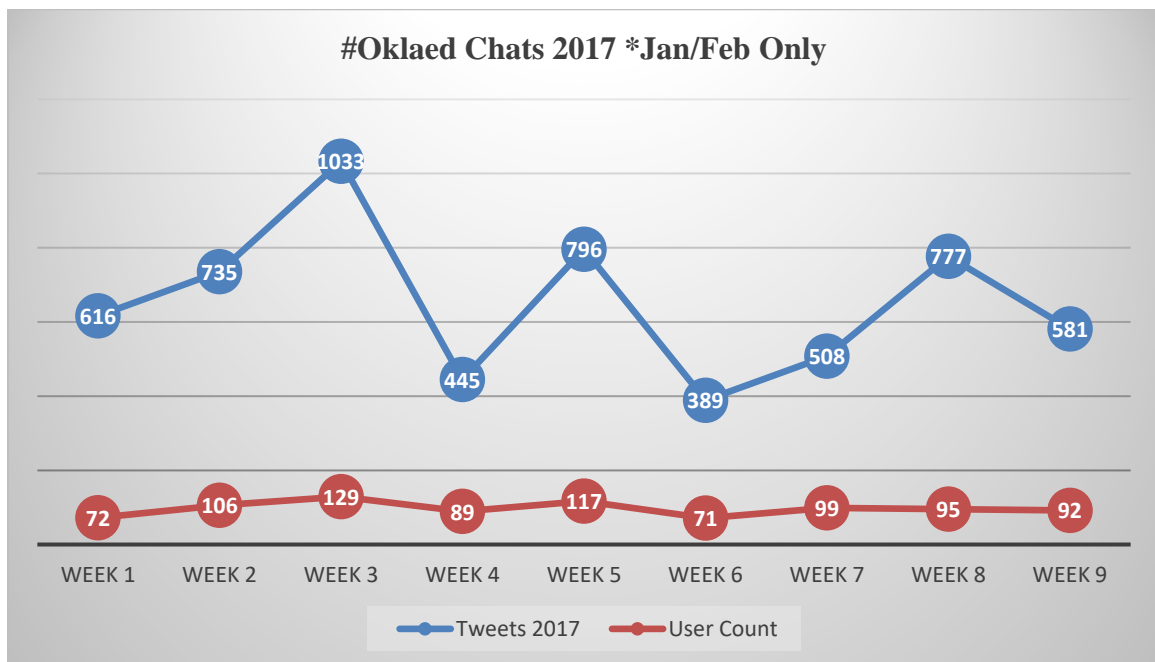


Figure 11. #Oklaed Chats 2017. Data represented is from January and February. Average Tweets/Chat = 653.3; Average User Count/Chat = 96.7; Total Tweets for 2017 Chats = 5,880; Tweets/Min = 10.9

Rapid flow of information and propagation of innovation. There were over 10 tweets per minute in 2016 during the #Oklaed chat. This is a very rapid flow of information and occurs from the beginning of the chat. Participant 8 said that “*when a live chat is happening, it is moving so quick, I really feel like people are having to shoot their ideas out.*”

Table 15 compares the average number of tweets per chat, average number of users per chat, total chat tweets for the entire year, the average number of tweets per chat, and the total tweets per year. This provides a comparison across years that show how the #Oklaed chat has increased in the average number of tweets, users, and tweets per minute.

Table 14

#Oklaed Chat and Twitter Data Over Time

Year	Average Tweets/Chat	Average User Count/Chat	Total Chat tweets for entire year	Chat tweets/min	Total Tweets/Year
2013	253	30.4	10881	4.2	21214
2014	290.3	39.6	14805	4.8	42197
2015	550.3	79.2	28066	12.7	70286
2016	600.7	87.2	30635	10	75895
2017*	653.3	96.7	5880	10.9	13183
Total Tweets					222,775

Note. *Data for 2017 is for January and February only.

Absence of introductory preambles. At the beginning of each chat, participants are invited to introduce themselves. However, these introductions are brief and frequently use less than the 140/280 character limit of Twitter. Sometimes the moderator will ask participants to share a fun fact or something trivial. Most responses in the beginning of the chat include who the participant’s name is and how they are connected

to education. Figures 12-14 show examples of how different #Oklaed chat participants introduce themselves.



Figure 12. An introductory tweet shared at the beginning of an #Oklaed chat.



Figure 13. An introductory tweet shared at the beginning of an #Oklaed chat.



Figure 14. An introductory tweet shared at the beginning of an #Oklaed chat.

Quick set up of a problem to be discussed. During the #Oklaed chat, questions are shared one at a time, and must be communicated through a tweet. With the limitation on the number of characters that can be used in the text of a tweet, questions must be direct and to the point. An example of this is the following tweet: “Q4: What apps do you use to help organize or share information students or teachers have already found? #Oklaed #Oklaed.” There will sometimes be a tweet that gives a general idea of what the

upcoming topic is going to be. Figures 15-17 show different examples of how information or questions are set up for discussion during an #OklaEd chat.

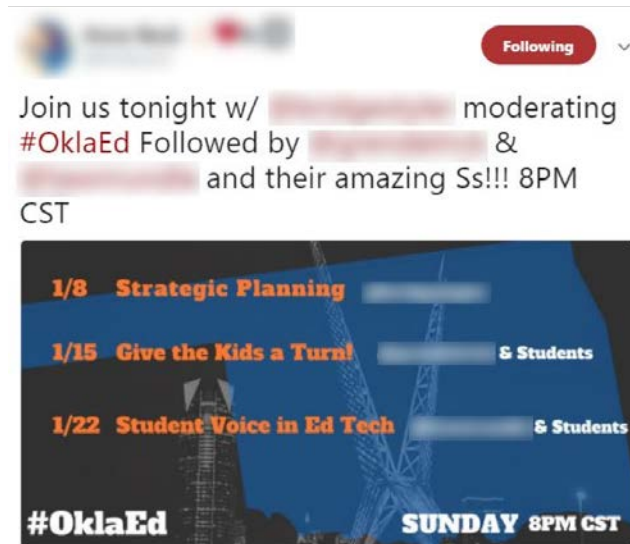


Figure 15. A tweet with a graphic showing what upcoming #OklaEd chat topics will be discussed.

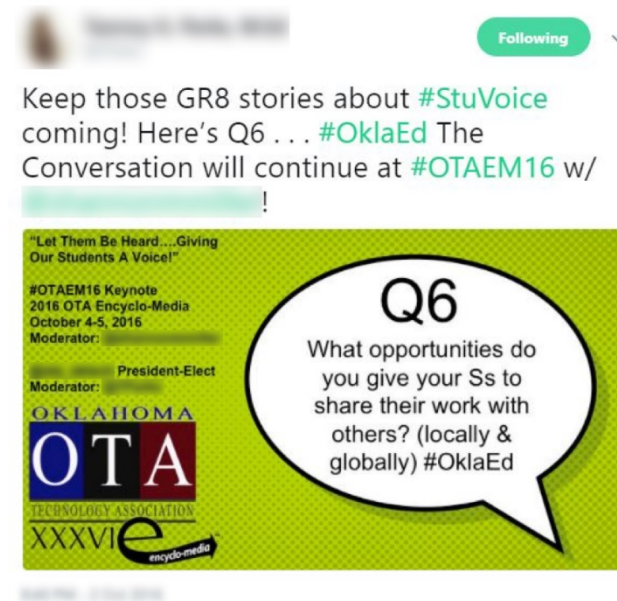


Figure 16. A tweet with a graphic that shows the quick set up for a question.

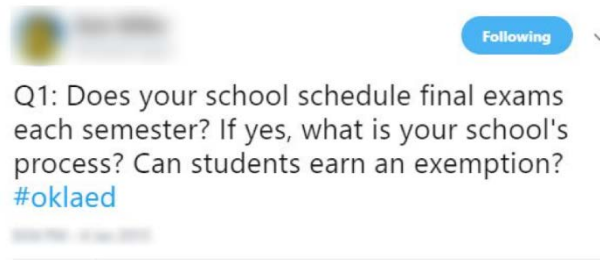


Figure 17. A tweet with a quick set up question from the beginning of an #Oklaed chat.

Jargon and shortcuts to communication. Before Twitter changed the rules for tweeting from 140 to 280 characters, there was a lot of jargon used to communicate. Most participants were able to understand this jargon, and some who were unfamiliar asked for clarification. Some examples of that are using “P” for parents, “A” for administrators, and “Ss” for students. The character count on Twitter can also have an impact on grammar or spelling as participants try to use phonetics to communicate their thoughts. Figures 18-20 show different examples of jargon that has been used in the #Oklaed conversation on Twitter.

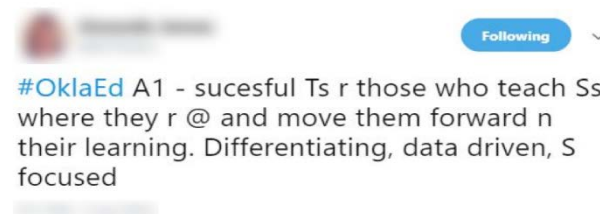


Figure 18. A tweet using some of the jargon in #Oklaed conversations on Twitter. With the limited character count, spelling and grammar are not always used correctly.

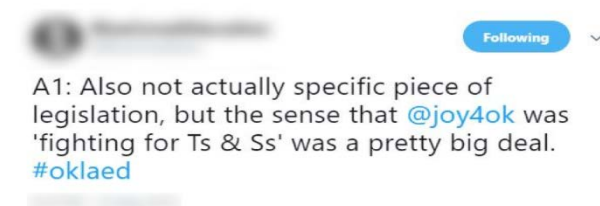


Figure 19. A tweet using some of the jargon in #Oklaed conversations on Twitter.

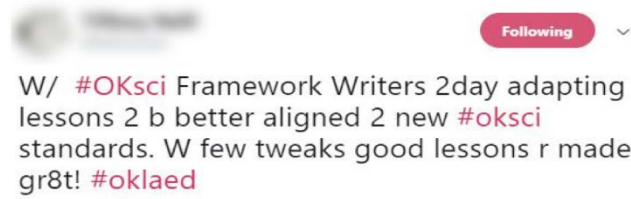


Figure 20. A tweet using some of the jargon in #Oklaed conversations on Twitter.

A shared discourse reflective a certain perspective on the world. An

interview question that was asked to participants was if there were any longstanding issues that #Oklaed was working to resolve. One of the responses was *“I think an awareness of the pollical side, I think they have done a good job...of different people contributing things they know.”* Another participant shared that *“I think that oklaed does a really nice job of putting pressure on the legislature, in terms of – the powers that be understand that we are not a silent voice.”*

Other participants noted that #Oklaed is trying to meet the needs of the students. She stated *“I see the effort to make sure that the kids are getting the best education that they can with what we have. And that’s pretty awesome.”* The principal from out of state, who is a frequent participant in #Oklaed said *“I think you are trying to be a voice, trying to enact some change for the better. I do know that is your number one deal down there.”*

RQ3: How is Professional Development Evolving?

Professional development has been found to be effective if it is sustained over time, engages teachers in active learning, gives teachers an opportunity to collaborate, and is focused on specific curriculum and pedagogy.

Interview Data

The #Oklaed hashtag has been used since 2013, with a focus on education in Oklahoma. Participant 2 share that “...*I really think it triggers me finding all kinds of useful information as far as professional development type – especially on – since I teach pre-kindergarten, and I have taught that probably, 10, 12 years now.*”

Participant 4, who is an alternative certified teacher in a rural community, has found that “...*because of oklaed and the way that it is working, in terms of becoming, I don’t know, a big free group of professional development.*” She said this has helped her grow as a teacher.

Participant 11 didn’t realize she could use Twitter for professional development until she discovered that she could. “...*I don’t find out about it unless I read about it on Twitter.*” She also likes that Twitter allows her to engage on her terms, “*Twitter professional development is hands off enough that it is not overwhelming.*”

Participant 9, who is a superintendent, share about Twitter “*its definitely a professional development tool.*” He also shared that he will tweet his building administrators in the middle of the night if he comes across something they should know or investigate.

Participant 5 said that he would be a completely different teacher now than he was a few years ago because of Twitter. His share his thoughts on using Twitter for

professional development saying, *“Absolutely – the transformation from where I was as a teacher to where I am now as an administrator...If I got plugged back into the classroom, I would be a completely different teacher, because of what I have learned on Twitter. The people that I have talked to, or listed to that are the leading researchers...For example, a big thing that I would do differently now, I’ve encouraged my teachers and we are taking steps toward this, I had a lot of grading practices that were really bad.”*

Participant 10 is using Twitter to find new things to share with her district. She is an instructional coach who uses the platform to get *“the programs, extensions, add-ons, information about updates and things that I just don’t know about at all.”* She has been using Twitter professionally for less than a year and shared how surprised she was that there were so many things that she could learn, saying *“I just could not believe how much information was out there and solely for professional development...That [Twitter] is all I am using it for is PD.”* She goes on to say that she hasn’t seen another place with the resources that are available.

Participant 3 is an assistant principal and doesn’t have the opportunity to attend as much professional development as he would like. For him, *“I go there just because, I can do it anywhere, its free, I don’t – you know – its just the ease of access and all of that.”* He believes that professional development is something that each teacher needs to

take ownership of and that when you do that *“you are in the driver seat of where you are going with it.”*

Participant 12 is a math teacher and she likes the interactive part of Twitter. For her, the platform eliminates the one person talking to you, and instead, gives you the opportunity to hear opinions and thoughts from everybody.

Participant 8 frequently delivers face to face professional development for College Board. He had several thoughts on how face to face professional development and using Twitter for professional development were similar and different. One of the things that he noted is that using social media for professional development can be a good alternative to spending money to bring in one speaker for a half-day or full day workshop. Regarding a speaker, Participant 8 said *“he [a hired speaker] still can’t do in a half day or a day, which is all most school districts can assign to professional development, you just can’t accomplish in that amount of time what you get through repeated exposure to a hashtag community.”* He then talked about the engagement issue and how this could be a knock against using social media for professional development. But, he noted that he has been involved in a lot of face to face professional development sessions with educators who were not engaged in the learning process at all. *“How do we look at professional development from a, from a quality or an evaluation standpoint, and say that face to face is better – we assume face to face is perhaps better, I don’t think that it is.”* However, he did circle back to the engagement issue, noting that there were days he got something out of face to face professional development, and days where he didn’t.

CHAPTER V

CONCLUSIONS, DISCUSSION, IMPLICATIONS

The purpose of this study was to use a community of practice theoretical lens to examine and understand who is participating in #Oklaed, why they are participating and what they do with what they learn in these conversations, and to determine what benefits, if any, educators see in their practice.

Summary of Findings

Using a computer program, over 200,000 tweets were captured that used #Oklaed in the text of the tweet. These tweets were examined in combination with a survey that asked educators how they used Twitter and was completed by 56 people. From the survey, thirteen participants were interviewed to better understand how they were using Twitter and what, if any, the benefits were for professional development. This data was used to examine who is participating in #Oklaed and how this group of Twitter users resembles a community of practice.

#Oklaed is represented by several different education stakeholders both inside and outside of Oklahoma. Two frequent contributors to #Oklaed come from other states – Wyoming and Virginia. Educators from across Oklahoma are represented in the hashtag, coming from almost every type of education setting. Educators from rural, suburban,

and urban districts regularly contribute tweets to #Oklaed. There are participants from charter schools and private schools. Parents, school board members, and high school students are represented. District and building administrators as well as publicly elected state officials have contributed to #Oklaed. There is also regular participation from preservice teachers and faculty in higher education. #Oklaed has also had nationally recognized education authors Dave Burgess and Todd Whitaker participate.

For a community of practice to exist, Wenger (1998) listed several indicators to look for (see Figure 5). When looking at sustained relationships, #Oklaed participants are developing these. Several of the participants of the first #Oklaed chat continue to be active in this space. Although participants have come and gone, there were more tweets with #Oklaed in the text in 2016 than there were in 2013. Interview participants also felt that there was a sense of “us” and “not being alone.” Another indicator is the rapid flow of information from participants. During an #Oklaed chat in 2017, there were 1033 tweets from 129 users, which is an average of 17 tweets per minute. Although this particular number is on the high end for a chat, the average number of tweets per minute for January and February 2017 is 653, which is an average of 10.9 tweets per minute. Another indicator is the quick set up of a problem for discussion, a typical #Oklaed chat will have several questions revolving around education. These questions are tweeted out during the one hour that the chat is live. There is sometime information shared about what the chat will be about, sometimes not, and the nature of the Twitter character count means that questions need to be direct and to the point. Other indicators are the use of jargon and shortcuts, and the ability to assess appropriate actions and shared perspective of the world. Because of the Twitter character count, jargon is part of how users

communicate through Twitter. The conversations that happen in #Oklaed follow norms and, for the most part, users treat each other in a professional manner. Finally, teachers are active here to improve their practice, to make education better in their communities and school.

When examining how professional development is evolving through the #Oklaed hashtag, interview participants said that this was a good place to go for professional development. Each participant shared that through Twitter they had come across an idea that they could try in their classrooms. Some of those ideas came from #Oklaed, some came from other Twitter conversations. All participants saw a benefit of using Twitter to improve their professional practice in some manner.

Conclusions and Discussion

There were several findings from this research. Some of these findings answered the research questions, some led in different directions, and some need further research. This section will be organized with the findings as they related to the research, then a discussion of findings that did not answer specific questions but need to be considered as part of the narrative of what kinds of conversations are taking place in #Oklaed.

Who is Participating?

There are several different education stakeholders who are represented in the data that was collected for this study. The conversation that started the #Oklaed hashtag was between a rural superintendent and a user, who at that time, was anonymous. This opening conversation has grown to include almost every aspect of the educational process. There are also an unknown number of people who are reading the conversations on #Oklaed and not contributing to them.

There are parents, school board members, teachers, pre-service teachers, college faculty, district and building administrators, instructional coaches, elected officials, and, on occasion, high school students. This conversation has grown each year that data was captured, which indicates that these participants are finding something beneficial (Figure 21). However, this data only represents those who have tweeted with #Oklaed in the text of the tweet. There are an unknown number of people who are viewing/reading the conversations happening in #Oklaed and not contributing. Two of the interview participants, who also completed a survey shared in #Oklaed, said that they had not contributed any tweets to this conversation. It was clear during the interviews that both participants knew what conversations were happening in #Oklaed.

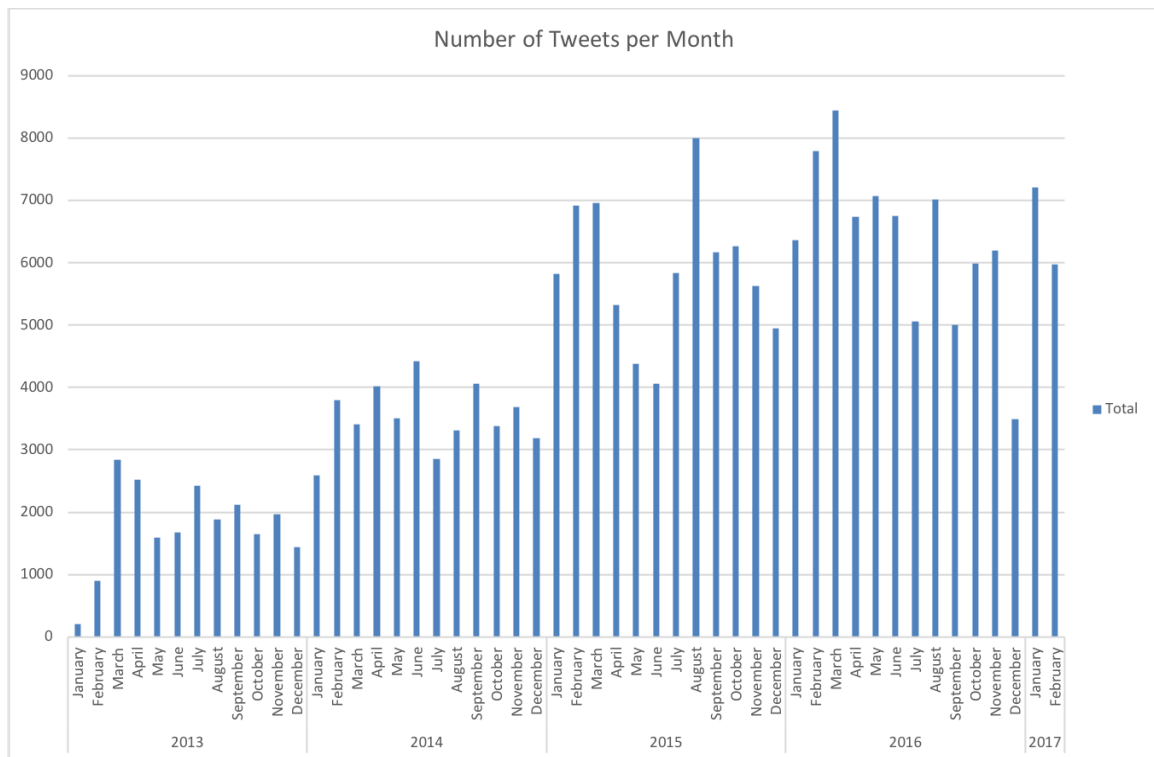


Figure 21. Tweets per month over time. Data for 2017 is for January and February only.

Another finding is that the use of #Oklaed in the text of tweets and the number of contributors increased from one year to the next (Figure 22). Although this does not specify who participated, it does indicate that participation is growing. The #Oklaed chats continue to have more participants and tweets over time. There is something occurring in this space that is drawing educators, and others, into participation. However, at some point in time, #Oklaed participation should level out.

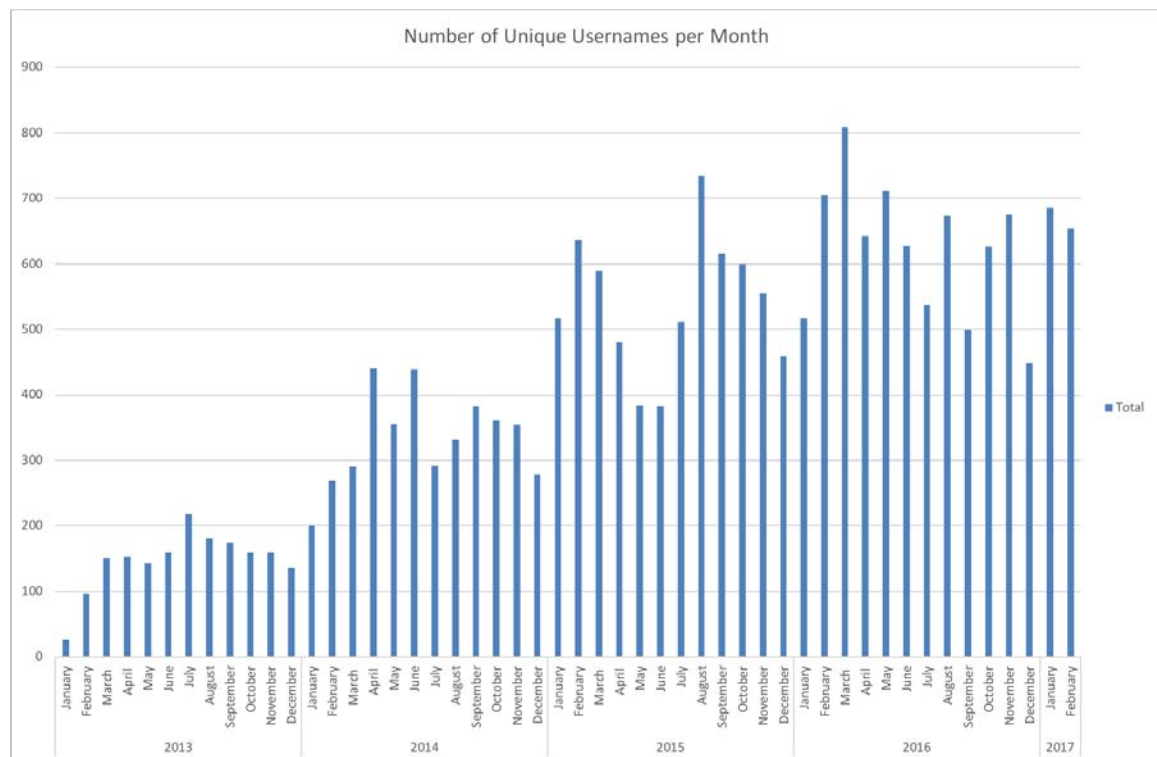


Figure 22. Number of unique usernames per month over time who tweeted with #Oklaed in the text of the tweet. There have been 5,357 total unique users. Data for 2017 is for January and February only.

Several interview participants made references to their wonderment on why there were not even more teachers actively participating in this space. The conversations in the interviews revealed that there was a benefit to, in the least, reading through the #Oklaed

conversation on a regular basis. Several of the interview participants could not understand why other educators would not even try.

Community of Practice

There was a strong sense of community from the interview participants. When asked to define #Oklaed, several interview participants used the word community and when discussing participation in #Oklaed used “we” to describe things. Each participant felt they belonged, even though they all contribute to the conversation in different ways. The participant who had never tweeted into #Oklaed, still felt like she was part of this community. Although not directly addressing the community aspect, several responses to the survey said that they use Twitter for emotional support. This would suggest that teachers feel safe sharing some personal issues in this space.

Another conclusion is that the #Oklaed participants have several characteristics that are visible in a community of practice. When examining whether a domain, community, and practice exist when a group of people meet together, Wenger (1998) listed several indicators that should be present. #Oklaed is very present in several of these indicators. Looking at the domain of a community of practice, interview participants all shared that the #Oklaed participants were trying to improve education through their participation. The phrase “I am not alone” was shared by several participants, indicating that through their experiences in #Oklaed, they were able to identify with what other participants had shared. Wenger (2002) said that to build a community of practice, the participants of the community should meet and interact on a regular basis and talk about things important to them, which the #Oklaed community has done. Almost every week since its inception, the #Oklaed chat has been held on Sunday

evenings. #Oklaed chats have covered a very wide variety of topics, focusing on several different aspects of education (Figure 23).

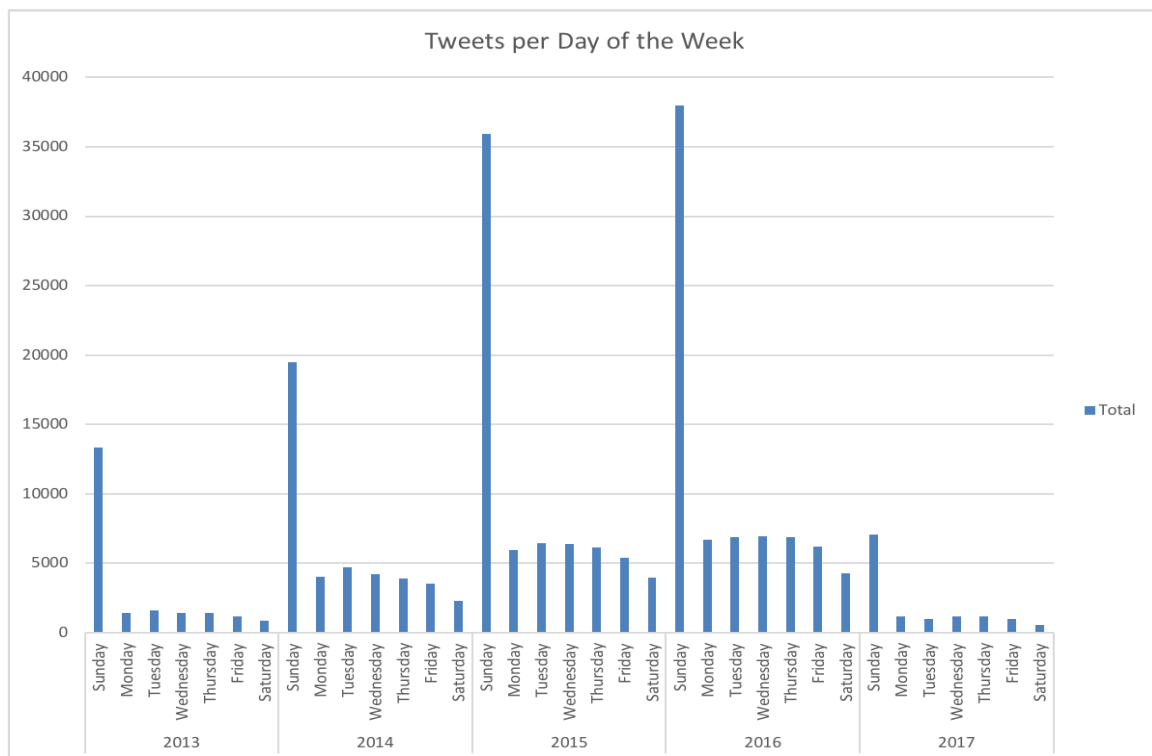


Figure 23. Number of tweets per day over time with #Oklaed in the text of the tweet. Data for 2017 included January and February only.

The data also show strong bonds among community members. When asked about conflict in the #Oklaed community, every interview participant agreed that some conflict existed, yet participants could agree to disagree, and were usually professional in their arguments. Several chats that occurred after data collection was completed include: a) Subtle Racism, b) The School to Prison Pipeline, and c) LGBTQ Issues in Education. These topics tend to be very difficult conversations and emotions can become raw very quickly. By all appearances, even those these topics were controversial, the chats were productive conversations. In fact, a podcast has been developed that focuses on the #Oklaed chat and the two most popular episodes were on the topics of racism and

LGBTQ issues. It would be interesting to see what impact these conversations had on teacher practice or on school policy.

Other ways in which the #Oklaed conversation resembles a community of practice is through the brief introductions and the quick setup of a problem. One of the norms for the chat is to introduce yourself right at the beginning. One of the interview participants said she was surprised so many people showed up ready to go at the beginning of the chats. In all of her years in education, she had yet to see a faculty meeting in her building start on time, yet when #Oklaed starts, participants are there. As for the quick set up of the problem, each chat has several questions to be answered. Due to the nature of the platform, questions need to be direct and to the point. Some participants have started using a graphic to convey a bit more information, but due to the interactivity and the voices of so many people, it is almost impossible to set up a problem with five or six pre-question tweets.

There is also the very rapid exchange of information during a chat. As the chat has grown in the number of users and tweets (Figure 24), it has become increasingly difficult to read every tweet in real time. There are some different websites that assist in organizing and following Twitter chats, Tweetdeck for example, but the information during an #Oklaed chat can be overwhelming. Several participants mentioned during the interviews that this could be something the new participants could struggle with.

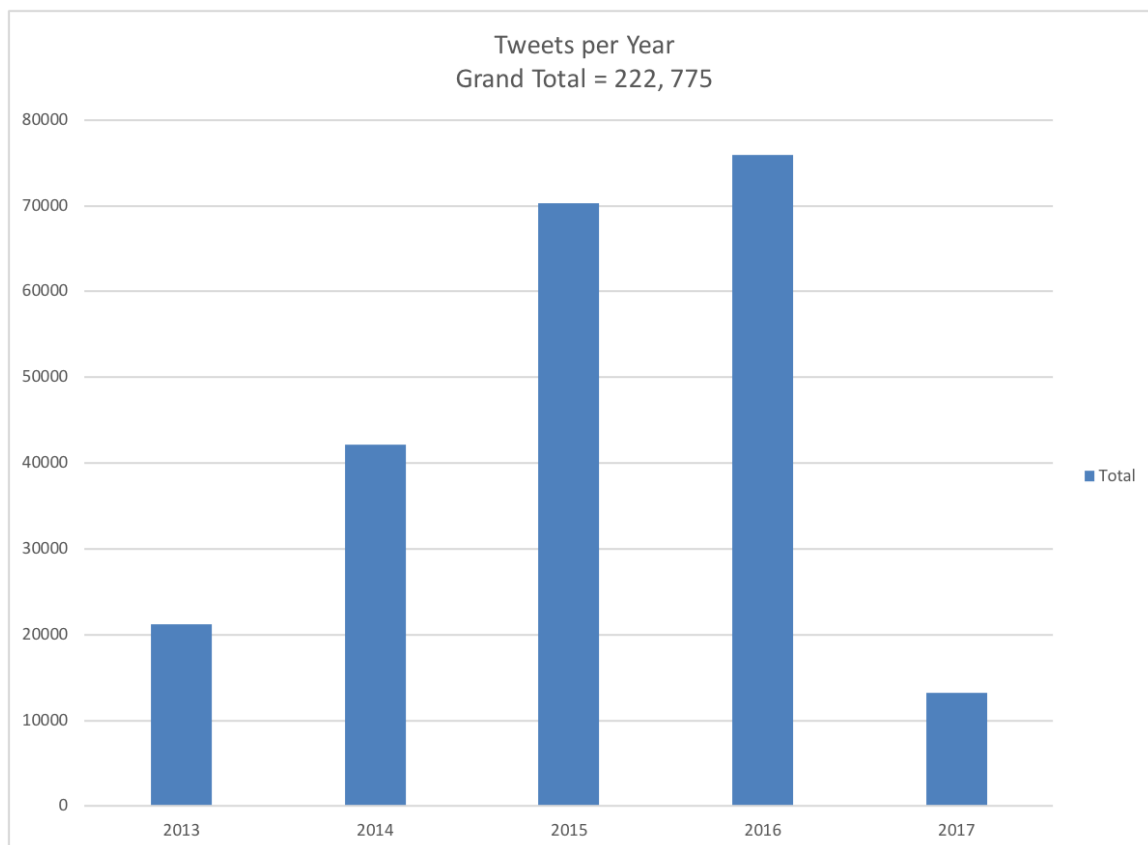


Figure 24. Number of tweets per year. The total number of all tweets with #Oklaed in the text of the tweet is 222,775, data for 2017 included January and February only.

Professional Development

One thing that came across in the data was that the participants of #Oklaed consider this conversation a place to get professional development. Hammond et al. (2009) said one of the keys to effective professional development is that it needed to be sustained over time. The #Oklaed hashtag has been used since January 2013, and the #Oklaed chat has occurred weekly since late February 2013. For those that participate on a regular basis, they are doing so over a sustained period of time.

The #Oklaed chat topics cover a variety of things because of the diversity of the participants and what their unique roles are in education. Although Figure 25 is not an exhaustive list of every #Oklaed chat, it demonstrates the diversity of the topics that are

covered. This diversity gives #Oklaed participants opportunities to participate through tweeting, or just reading the responses depending on the individual needs of the participant. The choice is left with the participant.

Brain Based Learning	Let Them Speak (hosted by high school students)	The Importance of Creativity in Education
Teach Like A Pirate	Partnering with Parents for #Oklaed Advocacy	New Math Standards
Parent Teacher Conferences	#YouMatter	Teacher/Class/ Professional Blogs
#ElectivesMatter	Characteristics of 21st Century Learners	Legislative Update
Bullying	What comes first, Curriculum or Technology?	Grade Like an Outlaw

Figure 25. A partial list of topics from #Oklaed chats.

This partial list covers a variety of topics that educators could use, or need better understanding of, in their classrooms. There were chats on topics that could directly impact the classroom, such as the new math standards or brain-based learning. Other topics provided educators with the opportunity to be aware of political issues, and how to

better partner with parent to advocate for education. Still others gave educators tools to think more creatively in the classroom.

Not every topic is interesting to each participant, but interview participants said that even on topics they felt they could not contribute to, they could learn something. Even if it was awareness of what upper grades were doing, so that they could better prepare younger students for those challenges.

Every interview participant noted that Twitter was a good place to get teacher professional development. They even shared instances of reading something on Twitter that altered or replaced an existing classroom practice. The superintendent shared in his interview that he will often forward important things to consider from Twitter to his building administrators late in the evening.

Political Findings

Another finding that developed is that participants of the #Oklaed community use this space to keep up to date on state politics regarding education, and participants use this space for advocacy for educators. A legislative updated conversation is a regularly occurring event in the #Oklaed Twitter chat. One of the participants said she used Twitter to be aware of what was happening politically [in Oklahoma] in different places, especially as it related to library issues. Another participant summed it up in this way “...I feel like Oklahoma teachers have a bond, because of our...government and the situation we are in as teachers in Oklahoma. This creates a special bond between us because of the position we are in in Oklahoma.”

Along with the use of Twitter to keep up with what is happening politically, #Oklaed participants are also using Twitter as a way to share their voice and advocate for

education. One of the contributors to the #Oklaed hashtag is a parent who uses social media to advocate for teachers. As one interviewee stated “I think that #Oklaed does a really nice job putting pressure on the legislature, in terms of – the powers that be understand we are not a silent voice.”

Implications

The purpose of this research was to identify how teachers were using #Oklaed and their perceptions of that use, therefore, these findings should help to establish how one particular use of Twitter can complement professional development that teachers are getting through their districts. These findings can inform future research and professional development.

Research

This study adds to the literature that is centered on professional development by examining how an informal learning environment on Twitter can impact educators. Although educational Twitter chats have been around for a few years, this is an area that can be more thoroughly researched. The focus of this study was on one state educational hashtag. Existing literature shows that almost every state has a state education hashtag, so what are the differences between different states and how participants use those hashtags? Each state has different issues unique to their educators, and drilling down, different communities have different needs. How is Twitter being used to address those specific needs for educators?

Looking past state Twitter hashtags, several educational chats range from very broad ideas about classroom practice or leadership style to very specific chats that focus

on a singular issues or curricular areas. How are educators using these hashtags in their practice? In the survey for this current study, respondents shared a variety of hashtags they follow as well as several specific Twitter chats they participate in. How do these conversations inform practice? How is a conversation on Twitter different when people from a wide variety of states participate in a conversation on a more narrowly focused topic?

It would also be remiss, in this era of “fake news” and viral social media posts, to not more thoroughly examine the different educational ideas that come up on social media. Some of the practices that educators share in this setting could be based on very unreliable information or a very small sample size. Media literacy is critical in the era of social media consumption and giving educators simple ways to more thoroughly examine what they see would be important future research.

The present study was qualitative in nature, using survey information, tweets, and interviews to get an understanding of how Twitter was being used by educators. Future research that develops a quantitative study of how educators are learning through Twitter can complement the work that was done for this study.

This study was limited by some of my assumptions about Twitter and the professional development that teachers can get from it. The experiences that I have had in this space caused me to completely change my practice and ultimately led to this dissertation. My emic point of view and long participation in #Oklaed has allowed me to get to know several of the participants; my goal for this research was to let the voices of the participants to speak. Because of my connection to the participants in #Oklaed, a large percentage of which are educators, I did not reach out to any specific parents. One

of the things that should be considered by others who would research #Oklaed is intentionally seeking input from a parent or board of education member who participates in this space. I shared a link through Twitter, wanting to use this space to get participants, but getting a broader audience would better balance future research.

Continuing that thought, another limitation for this study is that the people that wanted to be heard answered the survey and offered to participate in an interview. Of the thousands of people who have tweeted to the #Oklaed hashtag, only 56 answered the survey, and just over 40 of those were willing to be interviewed. This does not count the other unknown numbers of people who view the #Oklaed conversation and never participate in a public way. The participants of this particular study are in the minority and, therefore, could represent a minority in their thoughts about the benefits they shared.

Professional Development

The results of this study indicate that Twitter should be considered by educators seeking to complement the professional development in which they are participating. Many of the teachers were surprised by how much Twitter had to offer them professionally. They were equally puzzled by the number of teachers who were not using this medium for their professional development. Two of the participants even encouraged Twitter professional development for teachers in the district where they teach.

All the interview participants saw benefits in their classrooms from their participation on Twitter for professional purposes. Survey responses from 52 of the participants listed at least one hashtag that they followed, and 52 participants said that

they regularly participated in a moderated Twitter chat. This indicates, for those who answered the survey and were interviewed, that there is something in these conversations that is good for them. Why else would a teacher take an extra hour outside the contract day to continually participate?

The administrators who participated also listed several benefits of the professional development that they were able to find on Twitter. As were the district instructional coaches who were interviewed. Both groups think that using Twitter as a professional development choice could be beneficial for those educators who would choose to try it. An opportunity for these two groups to show how continual participation in a professional way on Twitter can offset a one-off workshop. It is critical to note that not every teacher will want to use Twitter, nor will every teacher benefit from Twitter. But administrators and instructional coaches should consider allowing this type of professional development for those who do participate on a regular basis.

In summary, professional development through Twitter can help educators improve their practice. This professional development can also complement the professional development that that educator is already participating in. This type of informal professional development also offers educators choice.

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APPENDICES

Appendix A

Survey (Carpenter & Krutka, 2014)

1. How long have you been using Twitter? (choose one)
 - a. Less than 6 months
 - b. Less than 1 year more than 6 months
 - c. Less than 2 years more than 1 year
 - d. Less than 3 years more than 2 years
 - e. 3 years or more
2. How long have you been using Twitter professionally? (Choose one)
 - a. Less than 6 months
 - b. Less than 1 year more than 6 months
 - c. Less than 2 years more than 1 years
 - d. Less than 3 years more than 2 years
 - e. 3 years or more
3. Typically, how frequently do you use Twitter? (Choose one)
 - a. Multiple times per day
 - b. Daily
 - c. Weekly
 - d. Monthly
 - e. Frequency of use varies
4. Professional vs. Personal use of Twitter (Choose one)
 - a. I use Twitter for Professional purposes
 - b. I use Twitter for personal purposes
 - c. I use Twitter for professional and personal purposes
5. For what professional purposes do you use Twitter? Check all of the reasons that apply.
 - a. Resource sharing/acquiring
 - b. Collaboration with other educators
 - c. Networking
 - d. Emotional support
 - e. Communication with students
 - f. Communication with parents

- g. In-class activities for students
 - h. Out-of-class activities for students
 - i. Participate in Twitter Chats
 - j. Backchannelling
 - k. Other
6. If you teach in a school district, what is your district policy on Twitter? (Choose one)
- a. Allowed for teachers
 - b. Allowed for teachers and students
 - c. Blocked for everyone
 - d. Other
7. Aside from Twitter, what other social media services do you use? Check all of the reasons that apply.
- a. Facebook
 - b. Pinterest
 - c. Linked In
 - d. Scoop.It
 - e. Tumblr
 - f. Ning
 - g. Foursquare
 - h. Instagram
 - i. Paper.li
 - j. Course-management system tools (Edmodo, Gaggie, Schoology, MyBigCampus, Moodle, etc)
 - k. Other
8. Why and how do you use Twitter?
- a. Please explain what aspects of Twitter you find the most valuable, and why. (Open-ended question)
 - b. Which hashtags do you regularly use, or search for, to connect with other educators? Check all of the reasons that apply. Please use the “other” box to include any other hashtags that you regularly use. Include multiple hashtags in the “other” box if appropriate.
 - i. #edchat
 - ii. #sschat
 - iii. #engchat
 - iv. #scichat
 - v. #mathchat
 - vi. #ntchat
 - vii. #elemchat
 - viii. #cpchat
 - ix. #satchat
 - x. #21stedchat
 - xi. #tlchat
 - xii. #mschat
 - xiii. #edreform
 - xiv. #edpolicy

- xv. #ccss
- xvi. #gtchat
- c. Please list the hashtags (e.g., #edchat) for any moderated weekly/monthly chats in which you regularly participate. (Open-ended question)
- d. Include your Twitter username if you are willing to participate in individual follow-up interview regarding educators' use of Twitter.

Appendix B

Interview Questions:

1. How do you use Twitter for professional purposes?
 - a. What do you want to gain from utilizing Twitter for professional purposes?
 - b. If you actively participate on Twitter for professional purposes, why do you choose to do so?
 - c. If you lurk on Twitter for professional purposes, why do you choose to do so?
2. What specific hashtags or Twitter chats do you follow?
 - a. Why do you follow those particular ones?
 - b. How often do you tweet into those different hashtags/chats?
 - c. How often do you lurk on these different hashtags/chats?
3. Why do you participate in the #Oklaed chat (either active/lurker)?
 - a. How frequently do you actively participate in the #Oklaed chat?
 - b. Have you moderated the #Oklaed chat?
 - i. If yes, why did you choose to do so?
 - ii. If no, do you plan on moderating a future chat? Why or why not?
 - c. What have you learned from your participation in #Oklaed?
 - d. What do you do with what you see in the #Oklaed chat?
 - e. Have you changed any classroom practices based on your participation in #Oklaed? What were the results of that change?
4. How would you describe or define #Oklaed? [Domain for CoP]
 - a. How has this space evolved?
 - b. Are there any longstanding issues that #Oklaed is working to resolve?
5. How would you describe what happens in #Oklaed? [Community for CoP]
 - a. What is your perception of how #Oklaed participants work through disagreements?
 - b. How does #Oklaed handle discussion of important or controversial issues?
6. What are the socially defined ways of participating in #Oklaed? [Practice for CoP]
 - a. How has #Oklaed changed over time?
 - b. What future changes should #Oklaed consider?

Appendix C

1. What is your official title?
2. Is your school district rural, urban, or suburban?
3. Years of experience
4. What kind of school do you work at?

Appendix D

Oklahoma State University Institutional Review Board

Date: Wednesday, December 6, 2017
IRB Application No ED17142
Proposal Title: Evolution of Educator Professional Development in the Age of Social Media:
A Case Study of the #Oklaed Community of Practice on Twitter
Reviewed and Exempt
Processed as:
Status Recommended by Reviewer(s): Approved Protocol Expires: 12/5/2020
Principal Investigator(s):
Scott Haselwood Tataleni Asino
Stillwater, OK 74078 Stillwater, OK 74078

The IRB application referenced above has been approved. It is the judgment of the reviewers that the rights and welfare of individuals who may be asked to participate in this study will be respected, and that the research will be conducted in a manner consistent with the IRB requirements as outlined in section 45 CFR 46.

☐ The final versions of any printed recruitment, consent and assent documents bearing the IRB approval stamp are attached to this letter. These are the versions that must be used during the study.

As Principal Investigator, it is your responsibility to do the following:

1Conduct this study exactly as it has been approved. Any modifications to the research protocol must be submitted with the appropriate signatures for IRB approval. Protocol modifications requiring approval may include changes to the title, PI advisor, funding status or sponsor, subject population composition or size, recruitment, inclusion/exclusion criteria, research site, research procedures and consent/assent process or forms.

2Submit a request for continuation if the study extends beyond the approval period. This continuation must receive IRB review and approval before the research can continue.

3Report any adverse events to the IRB Chair promptly. Adverse events are those which are unanticipated and impact the subjects during the course of the research; and

4Notify the IRB office in writing when your research project is complete.

Please note that approved protocols are subject to monitoring by the IRB and that the IRB office has the authority to inspect research records associated with this protocol at any time. If you have questions about the IRB procedures or need any assistance from the Board, please contact Dawnett Watkins 219 Scott Hall (phone: 405-744-5700, dawnett.watkins@okstate.edu).

Sincerely,



Hugh Crethar, Chair
Institutional Review Board

VITA

Scott Marshall Haselwood

Candidate for the Degree of

Doctor of Philosophy

Thesis: EVOLUTION OF EDUCATOR PROFESSIONAL DEVELOPMENT IN THE
AGE OF SOCIAL MEDIA: A CASE STUDY OF THE #OKLAED COMMUNITY OF
PRACTICE ON TWITTER

Major Field: Education

Biographical:

Education:

Completed the requirements for the Doctor of Philosophy in Education at
Oklahoma State University, Stillwater, Oklahoma in May 2018.

Completed the requirements for the Master of Education in Collaborative
Education at Graceland University, Lamoni, Iowa in 2004.

Completed the requirements for the Bachelor of Arts in History Education at
University of Central Oklahoma, Edmond, Oklahoma in 1995.

Experience: Secondary math teacher 1997-2015, Graduate Assistant 2015-
2017, Director of Instructional Technology 2017